State of California
Energy Resources Conservation and Development Commission

In the Matter of:	)	Docket No. 08-AFC-5
	)	
Application for Certification	)	**STAFF'S COMMENTS ON THE**
for the Imperial Valley Solar Project	)	**PRESIDING MEMBERS PROPOSED DECISION**

On August 26, 2010, the Committee issued the Presiding Member's Proposed Decision, (PMPD). Staff's ability to provide detailed technical comments on the PMPD is limited due to the adoption of an alternative not analyzed in Staff's Supplemental Staff Assessment. For the convenience of the Committee, recommended additions to the text are shown in underline while strikethrough represents text that should be deleted. Comments follow the order of the PMPD.

INTRODUCTION

PMPD, p. 4: *The initial portion of the certification process is weighted heavily toward assuring public awareness of the proposed Project and obtaining necessary technical information. During this time, the Commission staff sponsors public workshops at which intervenors, agency representatives, and members of the public meet with staff and the applicant to discuss, clarify, and negotiate pertinent issues. In this proceeding, Staff published its initial technical evaluation of the ~~AMS~~ IVS project in its Staff Assessment (SA) and made it available for a 90~~30~~-day comment period. Staff's responses to public comment on the SA and its complete analyses and recommendations were published in Supplemental Staff Assessment Parts ~~A through C~~ I and II, which were made available for public comment.*

STAFF COMMENT: The reference to AMS and Supplement Staff Assessment Parts A through C refer to the Abengoa Mojave Solar Project, not Imperial Valley Solar. As well, the SA was made available for a 90-day comment period.

PMPD: *The Committee conducted the Prehearing Conference on March 25, 2010 in Sacramento, California. The Evidentiary Hearings were held on May 24 and 25, 2010, in El Centro, California, and on July 26, July 27, and August 16, 2010, in Sacramento, California.* (**PMPD Introduction p. 6**)

STAFF COMMENT: The two days of Evidentiary Hearings in July were not mentioned.

PROJECT ALTERNATIVES

PMPD: *The 300 MW Alternative would essentially be Phase 1 of the proposed 750 MW project as defined by Applicant. The 300 MW Alternative would consist of 12,000 SunCatchers with a net generating capacity of approximately 300 MW occupying approximately 2,600 acres of land. This alternative would retain 40 percent of the proposed SunCatchers and would affect 40 percent of the land of the proposed 750 MW project. Applicant's Marc van Patten testified that this alternative would not be economically feasible. Referring to Table 4 of the Army Corps of Engineers Draft 404(b0(1) Alternatives Analysis, found at page 28 of Exhibit 129, Mr. van Patten testified that $3,000 per kilowatt is the construction cost per kilowatt above which the project would become economically infeasible. The 300 MW alternative would cost $3,200 per kilowatt to build, and would therefore be infeasible. The cost per kilowatt increases as the generation capacity decreases due to the many fixed costs that would be incurred regardless of the number of SunCatchers installed. (RT 7/27/10 449:11–463:1.) Reducing the project output from 750 MW as proposed to 300MW in this alternative resulted in a $250 per kilowatt increase in construction costs, which calculates out to an increase of $75 million. (Ex. 129, p. 32.)* (**PMPD Alts. p. 12**)

STAFF COMMENT: It should be noted that the power purchase agreement signed by the applicant with SDG&E is for 300 MW (see Advice Letter 2161-E dated April 7, 2010).

PMPD: *Although the staff did not specifically analyze this alternative, Staff did analyze alternatives at the same site which are larger and smaller than the 709 MW alternative. For virtually all impacts, staff concluded that the differences between the proposed project and Drainage Avoidance Alternative #1 (which has fewer SunCatchers than the 709 MW Alternative but has the same outer boundaries) do not have an effect on staff's determinations of the significance or non-significance of the impact. For some impacts, such as visual resources and land use, this is because the perimeter of the project will not change. (RT 7/26/10 87:10 – 88:22.) Neither will the perimeter change with the 709 MW alternative. For other impacts, there are no material differences among the alternatives discussed in this subsection.*[1] *Moreover, the FEIS, of which we have taken official notice, thoroughly analyses the 709 MW alternative.* (**PMPD Alts. p. 20**)

STAFF COMMENT: Although the alternatives analyzed by staff and the LEDPA are within the same outer boundaries, the relative impacts can differ significantly based on type and location of impacts within that area due to the uneven distribution of environmental resources. Drainage Avoidance Alternative #1 maintained the original project boundaries to protect resources within undeveloped areas of the project site [emphasis added] that otherwise could have been impacted by non-project related uses.

PMPD: *Working with the Army Corps of Engineers (Corps), the Applicant developed this alternative, designed to achieve most of the objectives of the Drainage Avoidance alternatives discussed above and also be feasible. The main goal of Staff's Drainage Avoidance alternatives was to reduce or eliminate the impacts of SunCatcher pedestals on washes at the site. The proposed project would cause impacts to 177 acres of Waters of the United States (WUS). Staff's alternatives would reduce the impacts to WUS to 38 and 31.9 acres, respectively. (Ex. 129, p. 28, Table 4.) The 709 MW alternative was designed to avoid the highest flows, thereby reducing impacts to WUS, but still be feasible. The 709 MW alternative achieves both goals, impacting 38.2 acres of WUS. The impacted acreage for this alternative is virtually the same as Drainage Avoidance Alternative #1 (Alternative #5 on Exhibit 129, p. 28, Table 4). Furthermore, it is economically and otherwise feasible, coming in at $3,000 per kilowatt to build, unlike Staff-recommended Drainage Avoidance Alternative #1.* (**PMPD Alts. p. 20**)

STAFF COMMENT: Although the LEDPA is characterized as having similar impacts to Waters of the US as Drainage Avoidance Alternative #1, this is based on different road designs rather than avoidance of additional resources. The LEDPA avoids only three of the major drainages avoided by Staff's recommended Drainage Alternative #1 and minimizes the impacts in two others (25 access roads remain in these drainages). The 709 MW LEDPA achieves the goal of reducing impact to Waters of the US primarily by narrowing the access roads within the washes and not counting "overland" travel to individual SunCatcher units within the washes for routine maintenance. Similar redesigns to the access road system in Drainage Avoidance Alternative #1 would result in similar reductions in impacts to Waters of the US relative to the LEDPA.

PMPD: ***FINDINGS OF FACT***

3. *Of the feasible alternatives analyzed, only the preliminary LEDPA/Agency Preferred Alternative/709MW Alternative would reduce the proposed projects impacts while meeting the project objectives.* (**PMPD Alts. p. 23**)

STAFF COMMENT: Although the LEDPA is correctly characterized as preliminary, staff's concerns remain over the fact that the final LEDPA could be different depending

on how the U.S. Army Corps of Engineers addressed public and agency comments on the preliminary LEDPA. Staff cannot comment on the actual impacts of the final LEDPA until it has been developed and adopted.

FACILITY DESIGN

PMPD: ***GEN-3*** *The project owner shall make payments to the CBO for design review, plan checks, and construction inspections, based upon a reasonable fee schedule to be negotiated between the project owner and the CBO, in accordance with the 2007 CBC. These fees ~~may be consistent with the fees listed in the 2007 CBC, adjusted for inflation and other appropriate adjustments;~~ may be based on the value of the facilities reviewed; may be based on hourly rates; or may be otherwise agreed upon by the project owner and the CBO.* (**PMPD Facility Design p. 5-6**)

STAFF COMMENT: The fees referenced are no longer listed in the California Building Code.

GREENHOUSE GAS EMISSIONS

PMPD: *The Imperial Valley Solar Project, as a renewable energy generation facility, is determined by rule to comply with the Greenhouse Gas Emission Performance Standard requirements of SB 1368 (Chapter 11, Greenhouse Gases Emission Performance Standard, Article 1, Section 2903 [b][1]). In addition, as a solar project with a nightly shutdown, the plant would operate at less than 60 percent of capacity and ~~it is~~ therefore if it were not determined by rule to comply it would not be subject to the requirements of Senate Bill (SB) 1368 (Chapter 11, Greenhouse Gases Emission Performance Standard, Article 1, Section 2900 et. seq.). Nonetheless, the IVS would easily comply with the requirements of SB 1368 and the Greenhouse Gases Emission Performance Standard.* (**PMPD GHG p. 1**)

STAFF COMMENT: The SB 1368 compliance finding for solar facilities, that do not include any fossil fuel based generation, is based on (Chapter 11, Greenhouse Gases Emission Performance Standard, Article 1, Section 2903 [b][1]). The capacity factor applicability standard would also show most solar facilities, those without power storage, to be exempt; however, the fact that the facility is solely a renewable energy facility provides an initial and overriding determination of compliance with SB 1368.

PMPD: *The generation of electricity using fossil fuels, even in a back-up generator at a thermal solar plant, produces ~~air emissions known as~~ greenhouse gases in addition to the criteria air pollutants that have been traditionally regulated under the federal and state Clean Air Acts. California is actively pursuing policies to reduce GHG emissions that include adding low~~non~~-GHG emitting renewable generation resources to the system.*
(**PMPD GHG p. 1**)

PMPD: *In this part of the Decision we consider:*

- *Whether IVS GHG construction and operations emissions will have significant impacts;*

- *Whether IVS operation will be consistent with the state's GHG policies and will help achieve the state's GHG goals by causing a decrease in overall electricity system GHG emissions.* (**PMPD GHG p. 2**)

PMPD: *Senate Bill (SB) 1368 of 2006, and regulations adopted by the Energy Commission and the Public Utilities Commission pursuant to the bill, prohibit utilities from entering into long-term commitments with any base load facilities that exceed an Emission Performance Standard (EPS) of 0.500 metric tonnes of CO_2 per megawatt-hour (this is the equivalent of 1100 pounds of CO_2/MWh). (Pub. Util. Code, § 8340 et seq.; Cal. Code Regs., tit. 20, § 2900 et seq.; CPUC D0701039.) Currently, the EPS is the only LORS that has the effect of limiting power plant GHG emissions. The IVS, as a renewable energy generation facility, is determined by rule to comply with the Greenhouse Gas Emission Performance Standard requirements of SB 1368 (Chapter 11, Greenhouse Gases Emission Performance Standard, Article 1, Section 2903 [b][1]). However, even if it were not determined by rule to comply, the project would be ~~IVS is~~ exempt from SB 1368 because it would operate at or below a 60 percent capacity factor. (Ex. 302, p. C.1-77.)* (**PMPD GHG p. 3**)

STAFF COMMENT: See comment above.

PMPD: *Construction of industrial facilities such as power plants involves concentrated on-site activities that result in short-term, unavoidable increases in vehicle and equipment emissions, including greenhouse gases. Construction of the proposed project is expected to occur in two phases over a period of 40 months~~ has three phases, each of which would last about 24 months. There would be a 12 month-overlapping period between each phase, which would result in 4 years of continuous construction~~. The Applicant provided a construction emissions estimate that Staff used to calculate greenhouse gas emissions for the entirety of the construction activities. The greenhouse*

gas emissions estimate, presented below in ***Greenhouse Gas Table 1[2],*** *was converted by staff into MTCO2E~~2e~~ and totaled.* (**PMPD GHG p. 4**)

STAFF COMMENT: The construction schedule description appears to be an artifact from another project that is incorrect for the Imperial Valley Solar Project. Additionally, a description of the temporary site power engines is recommended to be added to the footnote.

PMPD: *There is no adopted, enforceable federal or state LORS applicable to IVS construction emissions of GHG. ~~Nor is there a quantitative threshold over which GHG emissions are considered "significant" under CEQA.~~ Nevertheless, there is guidance from regulatory agencies on how the significance of such emissions should be assessed. For example, the most recent guidance from CARB staff recommends a "best practices" threshold for construction emissions. [CARB, Preliminary Draft Staff Proposal, Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act (Oct. 24, 2008), p. 9]. Such an approach is also recommended on an interim basis, or proposed, by major local air districts.* (**PMPD GHG p. 5**)

STAFF COMMENT: The ARB method discussed above includes a quantitative threshold, where project life amortized construction emissions is added to the operation emissions and compared to an annual emission threshold. However, this draft interim guideline is not specifically applicable to power plants as ARB defers significance criteria to the Energy Commission, but nonetheless this is a quantitative threshold. Additionally, other local entities such as SCAQMD have similar quantitative thresholds and methods to add construction to operation emissions, so the statement that indicates that there are no quantitative thresholds is not accurate.

PMPD: *Net GHG emissions for the integrated electric system will decline when new renewable power plants are added to: 1) increase renewable generation towards the 33 percent target; 2) improve the overall efficiency and thus reduce the GHG emission rate, of the electric system; or 3) serve load growth or capacity needs more efficiently, or with fewer GHG emissions. We find that IVS furthers the state's progress toward achieving these important goals and is consistent with the state policies we discussed in Section 1~~2~~ of this chapter.* (**PMPD GHG p. 12**)

STAFF COMMENT: Section numbering jumps from "1" on page 2 to "3" on page 4, which should be fixed, and the reference noted above is incorrect.

[2] The project construction GHG emissions have been updated to include water trucking emissions. Additionally, the applicant has corrected the on-road emission factors, developed from the ARB EMFAC model, from a 10 mile per hour speed basis to a 50 mile per hour speed basis. **Greenhouse Gas Table 1** does not include the temporary site power engine emissions which would increase the CO2E total by approximately 3,400 tons (Ex. 146).

PMPD: ***FINDINGS OF FACT***

1. *The GHG emissions from the IVS project construction are likely to be approximately 22,600~~19,204.77~~ MTCO2E~~2e~~ during the 40-month construction period.*

~~2. There is no numerical threshold of significance under CEQA for construction-related GHG emissions.~~

9. *The Imperial Valley Solar Project, as a renewable energy generation facility, is determined by rule to comply with the Greenhouse Gas Emission Performance Standard requirements of SB 1368.~~The SB 1368 EPS is not applicable to IVS GHG emissions because the project will be shut down nightly and therefore operate below a 60 percent capacity factor.~~* (**PMPD GHG p. 13-14**)

STAFF COMMENT: Suggest adding the 3,400 MTCO2E estimated for the added temporary site power engines, deleting the incorrect statement regarding numerical thresholds, and revising the SB 1368 compliance statement.

PMPD: ***CONCLUSIONS OF LAW***

~~2. The GHG emissions from a power plant's operation should be assessed in the context of the operation of the entire electricity system of which the plant is an integrated part.~~

3~~4~~. *IVS as a solar energy facility complies with the Greenhouse Gas Emission Performance Standard requirements of SB 1368.~~The SB 1368 EPS does not apply to IVS, but if it did IVS GHG emissions will not exceed the EPS limit.~~*

7~~8~~. *The GHG emissions of any power plant must be assessed within the context of the operation of the entire electricity system~~within the system~~ on a case-by-case basis to ensure that the project will be consistent with the goals and policies enunciated above.* (**PMPD GHG p. 15**)

STAFF COMMENT: Suggest revising the SB 1368 compliance statement and consolidating the partially redundant conclusions number 2 and 8.

AIR QUALITY

PMPD: Air Quality Table 2

Air Quality Table 2
Federal and State Attainment Status
Project Site Area within Imperial County

Pollutant	Attainment Status [a]	
	Federal	State
Ozone	Moderate Nonattainment	Moderate Nonattainment
CO	Attainment	Attainment
NO_2	Attainment[c]	Attainment
SO_2	Attainment	Attainment
PM10	Serious Nonattainment	Nonattainment
PM2.5	Attainment[b]	Attainment[a]

Source: Ex. 302. p. C.1-9

[a] Attainment = Attainment or Unclassified.

[b] Site is adjacent and upwind of the U.S.EPA limited PM2.5 non-attainment area surrounding the developed areas south of the Salton Sea.

[c] Nitrogen dioxide attainment status for the new federal 1-hour NO_2 standard is scheduled to be determined by January 2012.

(PMPD AQ p. 4)

PMPD: Air Quality Table 3

Air Quality Table 3
SES Solar Two Construction - Maximum Annual (12-Month) Emissions (tons/yr)

	NOx	SOx	CO	VOC	PM10	PM2.5
Onsite Construction Emissions						
Onsite Combustion Emissions	40.56	0.04	37.10	7.97	2.61	2.39
Onsite Fugitive Dust Emissions	--	--	--	--	37.84	5.54
Subtotal of Onsite Emissions	***40.56***	***0.04***	***37.10***	***7.97***	***40.45***	***7.93***
Offsite Emissions						
Offsite Combustion Emissions	27.00	0.04	33.94	2.21	1.05	0.84
Offsite Fugitive Dust	--	--	--	--	20.83	2.21
Subtotal of Offsite Emissions	***27.00***	***0.04***	***33.94***	***2.21***	***21.88***	***3.05***
Total Maximum Annual Emissions	***67.56***	***0.08***	***71.04***	***10.18***	***62.33***	***10.98***

Source: Ex. 302, p. C.1-17. ~~SES 2010g, Table 2.2-2~~

(PMPD AQ p. 5)

PMPD: *2. Construction Impacts and Mitigation*

The applicant determined late in the process, after the Supplemental Staff Analysis, that SCE would not be able to supply a site power line until as late as 12 months after the start of construction. This requires the use of temporary diesel generator engines until

the site power transmission line can be established. The applicant provided compelling testimony regarding this engine use, including a revised 1-hour NO_2 impacts analysis, that demonstrated that with the engine numbers, engine horsepower, and engine use proposed by the applicant that the State 1-hour NO_2 standard (the one standard of concern) would not be exceeded and that the General Conformity applicability thresholds (NOx – 100 tons/year, PM10 - 70 tons/year) would not be exceeded (Ex. 131, Ex. 146). As a result, we have adopted Conditions of Certification ***AQ-SC11****, stipulated to by the applicant (Ex. 308), which limits the temporary site power engine generator horsepower and use to that proposed by the applicant, to ensure that the Imperial Valley Solar Project will not create any new exceedances of the State 1-hour NO_2 standard impacts and to ensure compliance with the General Conformity Rule.*
(**PMPD AQ p. 6**)

STAFF COMMENT: The recommended addition addresses the applicant's late revision to the project description concerning the need for electric power engine generators to provide site power during the first year of construction and the resulting analysis and findings.

PMPD: Air Quality Table 5

Air Quality Table 5
SES Solar Two Operations - Maximum Annual Emissions (tons/yr)

	NOx	SOx	CO	VOC	PM10	PM2.5
Onsite Operation Emissions						
Onsite Combustion Emissions	*2.75*	*0.01*	*19.83*	*2.61*	*0.05*	*0.05*
Onsite Gasoline Tank Emissions	*--*	*--*	*--*	*0.92*	*--*	*--*
Onsite Fugitive Dust Emissions	*--*	*--*	*--*	*--*	*21.71*	*3.20*
Subtotal of Onsite Emissions	***2.75***	***0.01***	***19.83***	***3.53***	***21.77***	***3.25***
Offsite Emissions						
Offsite Combustion Emissions	*1.68*	*0.01*	*9.30*	*0.39*	*0.07*	*0.05*
Offsite Fugitive Dust	*--*	*--*	*--*	*--*	*3.26*	*1.00*
Subtotal of Offsite Emissions	***1.68***	***0.01***	***9.30***	***0.39***	***3.33***	***1.04***
Total Maximum Annual Emissions	***4.43***	***0.02***	***29.14***	***3.92***	***25.10***	***4.29***

Source: Ex. 302, p C.1-19 ~~SES 2010g, Table 2.2-4.~~

(PMPD AQ p. 7)

PMPD: *In light of the existing PM10 and ozone no-attainment status for the project area, Staff determined that the operating emissions of nonattainment pollutants and their precursors NOx ~~Nox~~, VOC, and PM emissions) are potentially CEQA significant and mitigation is required for the stationary equipment, the off-road maintenance equipment, and fugitive dust emissions. (Ex. 302, p. C.1-24.)* (**PMPD AQ p. 8**)
PMPD: *The record shows that the project's operating emissions are well below the General Conformity applicability thresholds for the federal PM10 and ozone nonattainment pollutants. Thus, no adverse NEPA impacts would occur after*

implementation of the recommended mitigation measures. (Ex. 302, p. C.1-28.) These conclusions are confirmed by the ICAPCD Final Determination of Compliance. (Ex. 306 ~~301~~.) (**PMPD AQ p. 8**)

PMPD: *For a period of time, the construction and operation of the facilities will overlap due to the staged construction and operation of the two phases. As discussed above, the record discloses Applicant's performance of various estimation ~~modeling~~ analyses for worst-case emissions. These analyses include estimation of ~~modeling for~~ the worst-case onsite emissions associated with overlap between operation of Phase I and construction of Phase II. (Ex. 302, pp. C.1-19 – C.1-22.) The maximum annual construction/operation overlapping emissions are shown below in **Air Quality Table 7**.* (**PMPD AQ p. 9**)

PMPD: *The Imperial County Air Pollution Control District issued a Preliminary Determination of Compliance (PDOC) for the SES Solar Two on August 20, 2009 and after a 30 day comment period that ended on September 24, 2009, issued a Final Determination of Compliance on October 14, 2009. (Ex. 306 ~~301~~) Compliance with all District rules and regulations was demonstrated to the District's satisfaction in the FDOC. The District's FDOC conditions are presented in Conditions of Certification **AQ-1** to **AQ-31,** which we adopt.*

*A fugitive dust management plan for unpaved roads is discussed in District Rule 805. Implementation of staff-recommended mitigation measures **AQ-SC3** and **AQ-SC7,** which we adopt, will reduce the project's contributions to fugitive dust emissions to below the level of significance.*

*In addition, Staff recommended several other Conditions of Certification designed to reduce the project's air quality impacts to below the level of significance. We have adopted Staff's recommended Conditions of Certification, **AQ-SC1** through **AQ-SC-11** ~~**AQ-SC10**~~.* (**PMPD AQ p. 14**)

PMPD: *FINDINGS OF FACT*

3. *The project will not cause new violations of any NO_2, SO_2, PM2.5, or CO ambient air quality standards. Therefore, the NO_2, SO_2, PM2.5, and CO emission impacts are not significant.* (**PMPD AQ p. 16**)

PMPD: Air Quality Table 6

Air Quality Table 6
Proposed Project Operation Emission Impacts

Pollutants	***Avg. Period***	***Project Impact (□g/m³)***	***Background (□g/m³)***	***Total Impact (□g/m³)***	***Standard (□g/m³)***	***Percent of Standard***
NO_2	*1-hr.*	*69.18*	*152.6*	*221.8*	*339*	*65%*
	1-hr Fed	*69.18*	*102.5[a]*	*171.7*	*188*	*91%*
	Annual	*0.23*	*20.9*	*21.1*	*57*	*37%*
CO	*1-hr*	*217.77*	*3,565*	*3783*	*23000*	*16%*
	8-hr	*64.48*	*2,878*	*2942*	*10000*	*29%*
PM10	*24*	*5.45*	*146*	*151.5*	*50*	*303%*
	Annual	*0.96*	*47.5*	*48.5*	*20*	*242%*
PM2.5	*24*	*0.77*	*27.1*	*27.9*	*35*	*80%*
	Annual	*0.14*	*8.8*	*8.9*	*12*	*75%*
SO_2	*1-hr*	*1.42*	*47.2*	*48.6*	*665*	*7%*
	3-hr	*0.85*	*42.4*	*43.3*	*1300*	*3%*
	24-hr	*0.18*	*18.4*	*18.6*	*105*	*18%*
	Annual	*0.0004*	*2.7*	*2.7*	*80*	*3%*

Source: Ex. 302, p. C.1-28 ~~SES 2009i, Table 5.2-30a; and URS 2010a~~.
(**PMPD AQ p. 8**)

PMPD: ***AQ-SC3 ….***

*b. All unpaved construction roads and unpaved operation and maintenance site roads, as they are being constructed, shall be stabilized with a nontoxic soil stabilizer or soil weighting agent that can be determined to be both as efficient or more efficient for fugitive dust control as ARB approved soil stabilizers, and shall not increase any other environmental impacts including loss of vegetation to areas beyond where the soil stabilizers are being applied for dust control. All other disturbed areas in the project and linear construction sites shall be watered as frequently as necessary during grading –(consistent with Biology Conditions of Certification that address the minimization of standing water ~~**BIO-7**~~); and after active construction activities shall be stabilized with a non-toxic soil stabilizer or soil weighting agent, or alternative approved soil stabilizing methods, in order to comply with the dust mitigation objectives of Condition of Certification **AQ-SC4**. The frequency of watering can be reduced or eliminated during periods of precipitation.* (**PMPD AQ p. 18**)

STAFF COMMENT: The recommended change to **AQ-SC3** subpart b. is needed to ensure that incorrect citations between sections do not occur.

PMPD: ***AQ-SC11*** *The project owner shall only use Tier 3 or higher certified engine generators, totaling no more than 1,900 horsepower, to provide project site power prior to the installation of utility construction or permanent electric power lines to the project site. These engines shall be in the range of 100 to 750 hp each and will have NOx emissions that are certified under full load to be no more than 3.0 grams per brake horsepower. These engines*

shall be located at least 600 feet inside of the project's property fence line and total engine use for all engines shall be limited to no more than 27,360 hours or 8,400,000 hp-hrs of operation, whichever is greater. This requirement does not include small engine generators that are solely dedicated to specific pieces of equipment, such as engine generators necessary for welders.

Verification: The project owner shall submit data on the site power generators at least 15 days prior to their use that demonstrates compliance with this condition and shall submit engine use information in the Monthly Compliance Reports showing compliance with this condition's total engine use limits. (**PMPD AQ p. 25**)

STAFF COMMENT: The recommended staff condition AQ-SC11 that was added to ensure that the construction emission findings remained valid given the applicant's late addition of diesel generators in the first year of construction[3] should be added.

BIOLOGICAL RESOURCES

PMPD: p. 31

e. Increased Risk from Roads/Traffic

*Vehicle traffic would increase as a result of IVS construction and operation, increasing the risk of injuring or killing wildlife To minimize the risks of increased traffic fatality and other hazards associated with roads at the IVS project site, we adopt Conditions of Certification **BIO-6** (WEAP) and **BIO-8**, Impact Avoidance and Minimization Measures. These measures include confining vehicular traffic to and from the project site to existing routes of travel, prohibiting cross country vehicle and equipment use outside designated work areas, and imposing a speed limit within the project site of ~~20~~ 25 miles per hour on paved routes, and 10 miles per hour on unpaved routes for the life of the project to lessen impacts to wildlife. The ~~20~~ 25 MPH speed limit is justified because of the potential for FTHL to persist on the site during construction and operation and the cryptic nature of the species. Common sense tells us that vehicle operators have a greater opportunity to see and avoid FTHL on the road while driving slowly. In addition, Condition of Certification **BIO-9** (Flat-Tailed Horned Lizard Construction Monitoring Program and Occupancy Study) would move any FTHLs encountered during construction out of harm's way. Similar measures have been applied on past projects and experience has shown that they reduce impacts from traffic. We find that these measures will reduce impacts related to construction and operation traffic to less than significant levels. (Ex. 302, pp. C.2 – 83 to C.2 – 84.)*

[3] The applicant determined late in the process that SCE could not guarantee to provide a power line to the project site until as late as one year into construction.

STAFF COMMENT:

The edits reflect the stipulation between staff and the applicant reached at the August 10, 2010 workshop. (Ex. 147; Ex. 308.) Staff and the applicant stipulated to the applicant's maintaining the 25 miles per hour speed limit on paved and stabilized roads, but allowing the Designated Biologist to lower the speed limit in specific areas to lessen wildlife impacts.

PMPD: p. 34-35

*However, on the project site, the noise level would be higher. With imposed impact and avoidance minimization measures such as speed limits, driving restrictions, and implementation of annual Worker Environmental Awareness Program training, as well as a vegetation management schedule that allows for the preservation of some remnant vegetation within the project boundaries, there is some potential that FTHLs and other local wildlife species may remain on the site during operations. We conclude that the operational noise levels on the project site will contribute to noise impacts to nesting birds and other wildlife which is significant within the boundaries of the project site and will contribute to a significant cumulative noise impact to wildlife in the region. No on-site operational mitigation measures are feasible. Operational ~~N~~noise impacts to wildlife movement through the project site would not be mitigated below a level of significance by ~~c~~Conditions of ~~c~~Certification **BIO-10** and **BIO-17** which consider the entire site to be impacted with regards to biological resources and require compensation acreage for the entire project site. (Ex. 302, pp. C.2-86 to C.2-88.)*

STAFF COMMENT:

Conditions of Certification **BIO-10** and **BIO-17** are intended to mitigate the construction and operation impacts caused by the permanent loss of habitat and foraging habitat. These impacts to habitat, however, are distinct from the significant adverse impacts to the movement of FTHL between the West Mesa and Yuha Desert FTHL Management Areas. (*Staff's Imperial Opening Brief*, p. 17, *citing* Ex. 302, pp. C.2-86-88 and Ex. 116.) The evidence demonstrates that impacts to FTHL connectivity and movement are significant and unmitigable and are not mitigated by compensatory mitigation for the loss of habitat. The PMPD should be modified to reflect this distinction.

PMPD: pp. 36-37

*Condition of Certification **BIO-17** (Lake and Streambed and Peninsular Bighorn Sheep Foraging Habitat Impact Minimization and Compensation Measures) specifies that, in addition to minimizing impacts to drainages where feasible, the replacement of the functions and services of the jurisdictional state waters on the IVS project site at specified ratios, is required. This mitigation will be integrated with the requirement to acquire off-site special status species habitat. In consultation with the U.S. Army Corps*

of Engineers, the U.S. Fish and Wildlife Service, and the California State Parks, the applicant proposes to conduct enhancement and rehabilitation of Carrizo Creek and marsh located west/northwest of the project at Anza Borrego State Park. This area is within the same watershed as the project and is within known Peninsular Bighorn Sheep populations, one of the species that may use the site for foraging. The measures focus on removal of Tamarisk, an invasive non-native plant species, which will restore and enhance the aquatic functions of the area and of PBHS foraging habitat. The efficacy of this method of mitigation has ample support in the record. (RT 7/27/10 55:18 – 56:16; 370:22-374:7.) CURE's witnesses Cashen and Bleich expressed concern over this form of mitigation, but they offered no alternative. (RT 7/27/10, 322:12 – 323:17; 338:1 – 339:20.) Section 15204(a) of the CEQA Guidelines, (CCR Tit. 14) provides: Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects.

We find that enhancement and rehabilitation of Carrizo Creek and marsh would mitigate for the loss of waters of the US and waters of the state and would provide benefits to the PBHS populations already present in the area. Nevertheless, the enhancement and rehabilitation measures at Carrizo Creek – an area already used as foraging habitat for PBHS – would not alone mitigate (i.e., make up for or replace) the permanent loss of PBHS foraging habitat at the project site to a level that is less than significant.

Our decision to require the compensation for the loss of 881 acres of PBHS foraging habitat is, moreover, reinforced by our concern for the methods by which the applicant has derived its estimate of 247 acres of PBHS foraging habitat. The site is characterized by desert washes which support high-quality vegetation for pregnant ewes; the Carrizo Creek, on the other hand, is a perennial wash that would not support the same type of vegetation. (RT 7/27/10 54:9-14, 330:17-24; Ex. 400, pp. 6-7) We are also concerned that the methodology for determining the estimated 247 acres of PBHS foraging habitat (use of the California Rapid Assessment Method (CRAM) in a desert environment) is unprecedented and untested. (RT 7/27/10 54:7, 332:13-20, 334:9-24; Ex. 129, Attachment D, pp. 2-5.) The CRAM's estimated 28% foraging cover in the ephemeral washes is, moreover, at odds with the estimated 10-15% foraging cover as testified by CURE's witness Dr. Vern Bleich. (RT 7/27/10 333:2-6.)

We therefore find that with implementation of this proposed condition of certification and the Applicant's acquisition of 881 acres of ephemeral wash foraging habitat containing 48 acres of ephemeral washes, impacts to the project area's jurisdictional waters would be reduced to less than CEQA significant levels.

STAFF COMMENT: Staff makes these comments in order to stress the difference between the benefits to PBHS of enhancement at Carrizo Creek in the form of replacement or increased foraging habitat versus reduced coverage for predators, which the PMPD does not recognize despite record evidence making this distinction. Staff respectfully disagrees that enhancement and rehabilitation of Carrizo Creek will mitigate for the loss of the quality of PBHS foraging habitat at the project site, although Staff agrees that Condition of Certification **BIO-17** would mitigate Waters of the U.S. and jurisdictional state waters impacts.

As discussed and supported with record evidence cited above, the desert ephemeral washes are qualitatively different from the perennial washes at Carrizo Creek and, accordingly, support different types of foraging cover. Dr. Bleich, a highly regarded PBHS expert, testified that the removal of tamarisk along Carrizo Creek would not likely result in the increase of forage availability. (RT 7/27/10 339:2-20.) It is exactly the high-quality vegetation that occurs in low-lying desert ephemeral washes on which pregnant PBHS ewes rely during late gestational stages and which are unlikely to occur at Carrizo Creek to meet the needs of PBHS in specific life stages. (RT 7/27/10 330:8-24, 338:1 – 339:20.)

More importantly, the permanent loss of PBHS foraging habitat must be mitigated with a 1:1 replacement PBHS foraging habitat, not the enhancement of existing foraging habitat. Enhancement of existing PBHS foraging habitat at Carrizo Creek would provide some benefit to PBHS in the form of reduce cover for predators (RT 7/27/10 338:17-339:1) and might mitigate some of the impacts caused by the project, but not to a level that is less than significant. In any event, as discussed in the paragraph above, enhancement and restoration activities at Carrizo Creek likely will not provide an increase in foraging availability. Accordingly, the loss of 881 acres of ephemeral wash foraging habitat for PBHS should be mitigated to a level that is less than significant by the acquisition of like habitat.

Staff is also concerned that the PMPD's sole and untested reliance on the CRAM analysis to determine the acreage of foraging habitat on the project site does not account for the potential deficiencies inherent in the CRAM analysis as conducted for this project. CRAM analyses normally assess "wetland functional capacity or condition." (Ex. 129, Attachment D, pp. 2-5.) The CRAM analysis conducted for the IVS project, on the other hand, was used to assess <u>for the first time</u> the condition of desert ephemeral washes on the project site. (*Id.,* pp. 4-5.) Five metrics are used in the CRAM analysis. Two of the metrics, the Landscape and Buffer attributes, can potentially apply to arid systems. The Hydrology attribute will need to be recalibrated for the arid systems. However, as stated in the Executive Summary for the CRAM, the Physical and Biotic Structure attributes "were the two most problematic attributes to apply to a condition assessment of drainages in the project area." The PMPD's use of analysis that is still being adapted for assessments in arid habitats is speculative, and the PMPD's determination of the project site's foraging habitat suitability based on the CRAM is therefore not sufficiently reliable to constitute substantial evidence under CEQA. Staff, in consultation with the wildlife agencies and with CDFG in particular, believes that

acquisition of 881 acres similar or better quality PBHS foraging habitat would mitigate the project's impacts to less than significant.

PMPD, p. 38

*The Applicant and staff reached conceptual agreement on the terms governing avoidance and mitigation for Special Status Plants detected in the Summer/Fall 2010 surveys, specifically, that Applicant will avoid at least 75 percent of CNDDB Rank 1 species plant populations and provide compensatory mitigation for the non-avoided plant populations at a 3:1 ratio; and that Applicant will completely avoid CNDDB Rank 2 species plant populations in project linears and construction laydown areas unless such avoidance would create greater environmental impacts in other resource areas or other restrictions, in which case the Applicant would provide compensatory mitigation for the non-avoided plant populations at a 2:1 ratio. (RT 8/16/10 218:24-221:21.) Accordingly, the Applicant has proposed off-site acquisition of habitat for Harwood's milk-vetch at a 2:1 ratio and for brown turbans, at a ~~2~~3:1 ratio. The Harwood's milk-vetch and brown turbans occur over an approximate 20-acre area~~, requiring the acquisition of 40 acres~~. Staff and BLM have proposed mitigation that requires surveys for special status plants in the late summer/fall of 2010. Condition of Certification **BIO-19** ~~not only~~ requires avoidance and minimization measures as an initial step as well as acquisition of compensatory mitigation habitat~~, but also includes detailed measures for avoiding and minimizing accidental impacts and indirect impacts to avoided plants~~. The measures include having a designated botanist onsite to oversee botanical survey and monitoring work and preparing a Special Status Plant Impact Avoidance and Minimization Plan which will designate procedures for designing site modifications to minimize impacts to newly discovered populations of special status plants and designate environmentally sensitive areas for plant avoidance*.

STAFF COMMENT: As reported to the Committee at the August 16, 2010 evidentiary hearing, Applicant and Staff reached conceptual agreement on the terms governing avoidance and mitigation for Special Status Plants detected in the Summer/Fall 2010 surveys, as set forth in the proposed language above. (RT 8/16/10 218:24-221:21.) The PMPD should be modified to reflect this conceptual agreement and to clarify that brown turbans is a CNDDB Rank 1 species (RT 7/27/10 191:14-22; RT 8/16/10 220:11-16) which should be mitigated at a 3:1 ratio.

Staff believes that its proposed Condition of Certification **BIO-19** as set forth in the *Reply Brief of Energy Commission Staff* (August 18, 2010), Appendix A, pp. 34-64, reflects the conceptual agreement between staff and the Applicant at the August 16, 2010 evidentiary hearing. The PMPD, however, appears to have incorporated Applicant's proposed Conditions of Certification (Ex. 147), a copy of which was distributed to parties immediately before the agreement was reached and therefore does not reflect the agreement between staff and the Applicant. Accordingly, staff's proposed Condition of Certification **BIO-19** should be incorporated into the Final Decision or else the Final Decision should incorporate the proposed Condition of Certification **BIO-19** as set forth below in these comments.

Staff has suggested changes to the above language in order to reflect the emphasis on avoidance and minimization measures as a critical initial, environmental protection step, with the ability of the Applicant to provide compensatory mitigation to the degree permitted in the condition and as stipulated by Applicant.

Finally, the PMPD should strike reference to the number of acres that would be required for compensatory mitigation. As discussed above, Applicant has stipulated to at least 75 percent avoidance in certain areas, as set forth in staff's proposed **BIO-19** and, moreover, the impact acreages for each species is unknown at this time, pending the completion of late summer/fall 2010 surveys. The actual acreage containing special status plant population affected by the project will be determined after the late summer/fall 2010 surveys.

PMPD, pp. 42-43

e. Peninsular Bighorn Sheep Impacts and Mitigation.

A group of five female/yearling Peninsular bighorn sheep (PBHS) have been observed in an ephemeral wash on the western half of the project site. PBHS could use the IVS project site as foraging habitat and as a possible movement corridor. CURE asserted that the project would reduce the availability of seasonal forage for PBHS and interfere with their activities as they move between the nearby Peninsular mountain range and the Yuha Desert. However, the weight of the evidence shows that use of the site by PBHS is transitory at most (Ex. 302, p. C.2-71), and even CURE's witness, Dr. Bleich agreed (RT7/27/10 350:21 – 351:8.) Nonetheless, because the project could eliminate potentially suitable foraging habitat for PBHS, mitigation is required.

*In order to reduce loss of foraging habitat to PBHS to less than significant levels, Condition of Certification **BIO-17** (Waters of the U.S., Waters of the State, and Peninsular Bighorn Sheep Foraging Habitat Impact Minimization and Compensatory Mitigation) require acquisition of 881 acres of compensation land that would offset the loss of bighorn sheep foraging habitat, and would result in the restoration of PBHS foraging habitat currently overtaken by invasive Tamarisk. Condition of Certification **BIO-8** would reduce construction-related impacts to PBHS. Implementation of these Conditions of Certification would reduce impacts to PBHS to less than significant levels. (Ex. 302, pp. C.2-71 to C.2-72.)*

STAFF COMMENT: See Staff Comment on PMPD pp. 36-37 above regarding appropriate mitigation for the loss of PBHS foraging habitat.

PMPD, p. 44:

The LEDPA/Agency Preferred Alternative, which does not allow development within certain major washes and avoids most development in others, may possibly allow some FTHLs to persist onsite. However, as the project would develop the entire site, except for the washes identified in the LEDPA, the applicant assumed that the loss of ~~some~~ all individual FTHL on site is likely. (RT 7/27/10 41:7-23.) While staff estimates there are 1,300 to 2,000 FTHLs currently onsite and most would perish, the evidence ~~more strongly supports a finding~~suggests that the actual number is far less ~~and it is not realistic to assume that all would perish~~. The applicant's evidence shows that only 4 FTHL were found during a recent survey of 38% of the site. The applicant's evidence, however, relies solely on occupancy surveys, which can only be relied upon to determine presence. Furthermore, the occupancy survey conducted by the applicant did not calculate a detection probability for the survey effort. Failure to incorporate detection probabilities, especially for a rare and cryptic species such as FTHL results in biased estimates and misleading results that can underestimate abundance. (Ex. 309) Given the cryptic nature of the FTHL, occupancy studies should not be the basis for determining the number of FTHL on the project site. (Ex. 310, p. 60; Ex. 309, pp. 1050, 1054.) Staff utilized the 2007 Grant and Doherty Report (Ex. 309), which incorporates detection probabilities, and adjusted the density to account for the project site's location and characteristics. We are persuaded that ~~Applicant's estimate of 150 – 200 is closer to~~ the actual number of individual FTHL on ~~for~~ the project site lies between the applicant's estimate of 150-200 and Staff's estimate of 1,300-2000. While the loss of even this number of FTHL, or any animal, for that matter, as a result of construction of a project is possible and regrettable, we are required to determine the significance of impacts. And ~~given~~ despite the evidence showing that FTHL populations in the nearby Yuha Basin and East Mesa Management Areas were estimated in a study published in 2005 at 25,514 and 42,619, respectively (Ex. 440, p. 1050), because the FTHL is a candidate species for federal listing, we must conclude that ~~this loss would not be a significant impact~~ the loss of even 750 individual FTHL (the midpoint between 200 and 1,300) is a significant, unmitigable adverse impact under CEQA.

STAFF COMMENT: Staff makes these comments because the PMPD does not discuss the substantial evidence in the record on the relative strengths and weaknesses of staff's and applicant's analyses for determining the number of FTHL on the project site. The PMPD's reliance on the applicant's estimate – while not explained – simply is not supported by the balance of record evidence, which includes applicant's expert witness' admission of the shortcomings of the absence-presence survey relative to the Grant and Doherty study. (RT 7/27/10 251:22-252:7.)

Staff is also concerned that the PMPD is silent on the threshold of significance and concludes that the loss of 150-200 individual FTHL is not significant apparently simply because so many individual FTHL occupy the MAs specifically designed to protect and propagate the FTHL. The PMPD's discussion on this matter does not reflect the fact that the FTHL is a species proposed for federal listing precisely because of the declining numbers.

Based on the balance of record evidence and the fact that the FTHL is a candidate species for federal listing, the PMPD should conclude that the loss of 750 or even 200 individual FTHL is a significant impact which cannot be mitigated (*see* RT 7/27/10 41:20-23).

PMPD, p. 44:

However, the loss of FTHL habitat is significant. One of the stated goals in the RMS is to prevent the net loss of FTHL habitat. In order to achieve this goal, compensation for habitat lost outside of a FTHL Management Area (MA), which would include the 6,063.1-acre project site, including the 1,038.7 of dirt and OHV roads that already exist on site, would be at a 1:1 ratio. The 7.56-mile transmission line outside of the project site is located in the Yuha Desert Flat-tailed Horned Lizard Management Area (MA). As 92.8 acres would be impacted within an MA, the compensation for habitat lost would be increased to a 6:1 ratio, thus requiring compensation acquisition of 556.8 acres (~~92.9~~ 92.8 acres x 6 = 556.8 acres). The requirements are set forth in Condition of Certification ***BIO-10****. It is anticipated that direct pipeline construction impacts to vegetation and wildlife would be temporary and can be reduced to less than CEQA significant levels with implementation of impact avoidance and minimization measures described in Conditions of Certification* ***BIO-1*** *through* ***BIO-9*** *as described previously.*

STAFF COMMENT:

As accurately reflected within the same paragraph excerpted from the PMPD above, the number of acres within the FTHL MA impacted by the transmission line is 92.8, not 92.9. (Ex. 302, p. C.2-2.)

PMPD, pp. 45-46:

The Applicant must provide financial assurances to guarantee that an adequate level of funding is available to implement all impact avoidance, minimization, and compensation measures. In order to make the mitigation feasible, Staff and Applicant have agreed that phased implementation of mitigation is appropriate. They initially disagreed, however, over phasing of security. Applicant pointsed out that under the phasing scheme they proposed, some security for mitigation payments for all biological resources collectively would be in place before corresponding impacts could occur. At least $1 million will be in place before the pre-financial closing disturbance of 200 - 300 acres, which is Phase

*1A. The exact amount will be based on the total number of acres that will be impacted and the mitigation ratio required for the impacted lands during Phase 1A. Staff articulated its concern over phasing of security as allowing a scenario to exist where applicant failed to pay a phase of mitigation security and therefore would fail to perform its mitigation obligations. Staff also articulated its concern that the applicant's proposed phasing of security would not be sufficient to stay ahead of impacts to all species where compensatory mitigation is required. ~~While we~~ understand their concern, and accordingly we believe that the phasing of security is a reasonable approach and ~~the impact would be sufficiently mitigated~~ agree that the applicant's security must be at least equal to the compensatory mitigation required for impacts to all species for which compensatory mitigation is mandated. Moreover, p~~P~~ayment of a phase of mitigation security would be a prerequisite to the commencement of any construction on that phase. Furthermore, applicant has provided evidence that for us to require otherwise would impose a financial hardship, and possibly make the full, up-front payment of compensatory mitigation infeasible. (Applicant's Post-Hearing Opening Brief at 26; Exs. 132, 136, 137.) Accordingly, we adopt Applicant's ~~proposed Condition of Certification **BIO-10** (Ex. 147) to allow for the~~ phased mitigation scheme ~~requested by Applicant~~ as conditioned by this Decision.*

(Ex. 302. Pp. C.2-73 to C.2-79)

The evidence is in conflict as to whether or not the mitigation lands will be deeded to and whether or not the BLM requires a long-term maintenance and management fee or other funding to manage the acquired FTHL mitigation lands. However, at the August 16 Evidentiary Hearing, Staff and the Applicant informed the Committee that they had agreed that payment of the ~~BLM~~ Long-term Management and Maintenance (LTMM) fee was acceptable for FTHL mitigation acquisition, subject ~~only~~ to ~~BLM's final calculation~~ a Property Analysis Record (PAR) or PAR-like analysis of the amount as approved by the CEC's CPM. The FEIS, dated July 28, 2010, of which we take Official Notice, includes the LTMM in its Mitigation Measures.

*Condition of Certification **BIO-10** (Special Status Species Habitat Compensation Mitigation) would reduce impacts of the loss of FTHL habitat, ~~but not~~ to less than significant levels.*

STAFF COMMENT:

The PMPD appears to have misunderstood staff's concerns over the applicant's original phasing proposal. In its opening brief and at the August 16, 2010 evidentiary hearing, applicant indicated its agreement to provide LTMM fees for FTHL habitat mitigation land acquisitions and to post security in an amount equal to the compensatory mitigation required based on the acreage actually impacted, and that such security or payment would be posted or made prior to ground disturbance of the acres for which mitigation is required. (RT 8/16/10 207:6-210:6.)

Utilizing the REAT table of estimated cost elements for FTHL compensatory mitigation (Ex. 303, Attachment A), staff has estimated the compensatory mitigation under **BIO-10**,

BIO-17 (acreage still in dispute between staff and applicant), and **BIO-19** to reflect the phased construction schedule forwarded by the applicant (*see Applicant's Submittal of Post-Hearing Brief*). While it would appear that the applicant's proposed schedule for posting security or payment of compensatory mitigation of impacts to FTHL habitat alone would stay ahead of ground disturbing activities and acreages assuming it elects not to utilize the REAT Account with the National Fish and Wildlife Foundation, it is not clear (and based on staff's calculations, appears unlikely) that the applicant's proposed payment schedule would stay ahead of impacts to all species requiring compensatory mitigation under **BIO-10**, **BIO-17**, and **BIO-19**. In accordance with the applicant's agreement in principle to post security ahead of impacts and ground disturbing activities, it is necessary to modify the PMPD to require the applicant to pay at least the estimated compensatory mitigation for all impacts ahead of causing those impacts, not just the $1 million at the intervals indicated in *Applicant's Submittal of Post-Hearing Brief*.

In addition, the LTMM fee under **BIO-10** should be based on a PAR analysis approved by the CPM. Applicant has agreed to payment of the LTMM based on a PAR analysis. (*Applicant's Submittal of Reply Brief, p. 14.)* As **BIO-10** is an Energy Commission requirement and will mitigate impacts to the FTHL habitat pursuant to CEQA, the LTMM fee therefore should not be determined by the BLM as proposed in the PMPD, but by a PAR analysis approved by the CEC's CPM. Staff's and applicant's initial dispute over the payment of the LTMM fee was whether the Congressional funding of BLM's management activities should reduce the LTMM fee for which applicant would be responsible should the acquisition lands be deeded to BLM. (*Applicant's Submittal of Post-Hearing Brief*, pp. 21-23.) For the applicant to "conceptually agree" to pay the LTMM fee, when the disputed issue was whether the applicant should pay the LTMM fee when the land is deeded to BLM, the Final Decision must conclude that applicant's responsibility for the LTMM fee is based on a PAR analysis to determine the actual costs to manage and maintain the specific parcels of mitigation land, apart from any Congressional funding BLM receives to manage all of its lands nationwide.

PMPD, p. 48:

Incidental Take Permit: California Endangered Species Act (Fish and Game Code §§2050 et seq.) *The California Endangered Species Act (CESA) prohibits the "take" (defined as "to hunt, pursue, catch, capture, or kill") of State-listed species except as otherwise provided in state law. The bighorn sheep is listed as threatened under CESA and is also a State Fully Protected species. Due to the Peninsular bighorn sheep being listed as a Fully Protected species, take cannot be authorized for this species and must be avoided. Therefore, no take authorization will be issued by the Energy Commission for the Peninsular bighorn sheep. However, the loss of big horn sheep foraging habitat is a significant impact under CEQA. In order to mitigate for the loss of 881 acres of PBHS foraging habitat to a less than significant level, acquisition of foraging habitat at a 1:1 ratio will be required.*

STAFF COMMENT:

Staff agrees that acquisition of foraging habitat at a 1:1 mitigation ratio is required and, as discussed in its comments above, believes that the balance of substantial evidence supports the Final Decision requiring compensatory mitigation for 881 acres of PBHS foraging habitat.

PMPD, p. 49:

Lake and Streambed Alteration Agreement: California Fish and Game Code §§1600-1607*. Pursuant to these sections, CDFG typically regulates all changes to the natural flow, bed or bank, of any river, stream, or lake that supports fish or wildlife resources. Construction of the IVS project would result in permanent impacts to 48 acres of jurisdictional state waters. Conditions of Certification* ***BIO-17*** *and* ***BIO-****7 were was developed in coordination with CDFG to ensure that implementation of these this conditions would minimize and offset impacts to jurisdictional state waters, and would assure compliance with CDFG requirements that provide protection to jurisdictional state waters.*

STAFF COMMENT:

Staff's proposed Condition of Certification **BIO-17**, as set forth in the *Reply Brief of Energy Commission Staff*, Appendix A, was developed in coordination with CDFG. However, Condition of Certification **BIO-17** proposed by the Applicant and as contained in the PMPD was not developed in coordination with staff or CDFG.

Condition of Certification BIO-7 is the Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP). The BRMIMP incorporates all the plans and requirements of state and federal agencies for licensing of the project. Though coordination between CDFG and staff on the individual plans being incorporated in the BRMIMP has occurred, there is no coordination necessary for BIO-7.

PMPD, p. 52 (Finding of Fact No. 6):

6. *To address indirect effects to special status plants, we have adopted a number of conditions of certification that would minimize direct and indirect impacts to special-status plants. BIO 18 requires finalizing and implementing the detailed Weed Management Plan. BIO 19 includes detailed measures for avoiding and minimizing accidental impacts and indirect impacts to avoided plants. The avoidance and minimization measures contained in BIO 1 through BIO 8 would also benefit special-status plants by protecting the avoided occurrences of Harwood's milk-vetch, Wiggins' croton, and brown turbans, and other avoided special-status plants from accidental effects during construction.*

STAFF COMMENT:

Wiggins' croton is a state-listed Rare plant detected along the proposed water supply pipeline route during the spring 2009 surveys. (Ex. 302, p. C.2-7.)

PMPD, p. 54 (Conclusion of Law No. 1):

Implementation of the Conditions of Certification would mitigate noise impacts to FTHL and impacts resulting from the loss of individual FTHL, a candidate species for federal listing, to the extent possible, but not below the level of significance.

STAFF COMMENT:
See staff's comments on the PMPD pp. 34-35 and 44, above.

PMPD, pp. 58-60 (BIO-6):

WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP)

BIO-6

[…]

- *Include signage to be posted at the entrance to the project site and throughout the project site which has the following information:*
    - *10 m.p.h. speed limit (for all unpaved roads that are not stabilized) or 25 ~~0~~ m.p.h. speed limit (for all paved or stabilized roads); except in specific areas identified by the Designated Biologist where the speed limit on paved an stabilized roads needs to be less than 25 ~~0~~ miles per hour to lessen wildlife impacts;*
    - *A picture of the FTHL; and*
    - *Reminder to check under vehicles before driving.*

[…]

Verification: *At least 30 days prior to the start of any project-related site disturbance activities, the project owner shall provide to the BLM Biologist and the CPM a copy of the draft WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program.*

The project owner shall provide in the Monthly Compliance Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date. At least ten days prior to site and related facilities mobilization, the project owner shall submit two copies of the BLM- and CPM-approved final WEAP.

Training acknowledgement forms signed during construction shall be kept on file by the project owner for at least six months after the start of commercial operation.

Throughout the life of the project, the worker education program shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area. Upon completion of the orientation, employees shall sign a form stating that they attend the program and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to the BLM Biologist and the CMP upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate that they have completed the training.

Should the Designated Biologist, in consultation with the BLM Biologist and the CPM, identify an area where the speed limit must be lowered on paved and stabilized roads, new signage must be posted with the new lowered speed limit within one week of this determination and photographic verification provided to the CPM within the same time period. This speed limit would be adhered to until additional signage specifies otherwise. Announcement of the location(s) of the area designated with the lowered speed limits must be made to the employees within 24 hours of the Designated Biologist's determination.

During project operation, signed statements for operational personnel shall be kept on file for six months following the termination of an individual's employment.

Should the Designated Biologist, in consultation with the BLM Biologist and the CPM, identify an area where the speed limit must be lowered on paved and stabilized roads, new signage must be posted with the new lowered speed limit within one week of this determination and photographic verification provided to the CPM within the same time period. This speed limit would be adhered to until additional signage specifies otherwise. Announcement of the location(s) of the area designated with the lowered speed limits must be made to the employees within 24 hours of the Designated Biologist's determination.

STAFF COMMENT:

The edits reflect the stipulation between staff and the applicant reached at the August 10, 2010 workshop. (Ex. 147; Ex. 308.) Staff and the applicant stipulated to the applicant's maintaining the 25 miles per hour speed limit on paved and stabilized roads, but allowing the Designated Biologist to lower the speed limit in specific areas to lessen wildlife impacts.

PMPD, pp. 63-67 (BIO-8):

IMPACT AVOIDANCE AND MINIMIZATION MEASURES

BIO-8

[…]

- *Vehicular traffic during project construction and operation shall be confined to existing routes of travel to and from the project site, and cross country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit shall not exceed 10 miles per hour on all unpaved roads that are not stabilized and 25~~0~~ miles per hour on all paved or stabilized roads; except in specific areas identified by the Designated Biologist where the speed limit on paved an stabilized roads needs to be less than 25~~0~~ miles per hour to lessen wildlife impacts.*

STAFF COMMENT:

The edits reflect the stipulation between staff and the applicant reached at the August 10, 2010 workshop. (Ex. 147; Ex. 308.) Staff and the applicant stipulated to the applicant's maintaining the 25 miles per hour speed limit on paved and stabilized roads, but allowing the Designated Biologist to lower the speed limit in specific areas to lessen wildlife impacts.

PMPD, pp. 69-81 (BIO-10):

SPECIAL STATUS SPECIES HABITAT COMPENSATORY MITIGATION

*This condition is designed to compensate for project-related impacts to habitat for FTHL, burrowing owl, golden eagle, American badger, and desert kit fox. However, to the extent that any compensation land acquired under this condition satisfies the selection criteria for **BIO-17,** such compensation acreage acquired pursuant to this condition may be used to fulfill all or a portion of **BIO-17**.*

~~FLAT-TAILED HORNED LIZARD COMPENSATORY MITIGATION~~

BIO-10 *The project owner shall provide compensatory land to mitigate for habitat loss and direct impacts to flat-tailed horned lizards, burrowing owl, golden eagle, American badger, and desert kit fox based on revised estimates of suitable flat-tailed horned lizard habitat on-site provided by the applicant in its Post-Hearing Opening Brief and its post-evidentiary hearing submission of phasing information. The project owner shall provide compensatory mitigation at a 1:1 ratio for ~~6,063.1~~ 6,445.0 acres of impacts outside of the FTHL*

*Management Area (MA) and at a 6:1 ratio for impacts to ~~92.6~~ 92.8 acres within the FTHL MA. These impact acreages are to be adjusted to reflect the final approved project footprint. See **Biological Resources Table** below.*

Phase	**Acreage of FTHL habitat impacted**	**Mitigation Ratio**	**Compensation Acreage**	**Mitigation Payment**
1A	204.6 acres	1:1	204.6 acres	$301,776 (without NFWF) $319,283 (with NFWF)
1A	92.8 acres Offsite transmission line in FTHL Management Area	6:1	556.8 acres	$821,254 (without NFWF) $868,900 (with NFWF)
Total for 1A	**297.4 acres**		**761.4 acres**	**$1,123,030 (without NFWF) $1,188,183 (with NFWF)**
1B	**2682.3 acres**	**1:1**	**2682.3 acres**	**$3,945,211 (without NFWF) $4,026,444 (with NFWF)**
2	**3558.1 acres**	**1:1**	**3558.1 acres**	**$5,241,452 without NFWF) $5,349,452 (with NFWF)**
TOTALS	**6,537.8 acres**		**7,001.8 acres**	**$10,309,693 (without NFWF) $10,564,079 (with NFWF)**

For purposes of this condition, the project footprint means all lands disturbed in the construction and operation of the IVS Project, including the offsite

transmission line, as well as undeveloped areas inside the Project's boundaries that will no longer provide viable long-term habitat for the species mentioned above. To satisfy this condition, the project owner shall acquire, protect and transfer to an approved land manager no fewer than ~~6,619.9~~ 7,001.8 acres of FTHL habitat (adjusted to reflect the final project footprint), and shall also provide funding for the initial improvement and long-term maintenance and management of the acquired lands, and comply with other related requirements in this condition.

Funding of this mitigation shall be phased to ensure that appropriate compensation lands and/or funding reflect the phasing of actual project impacts and will ensure that all impacts are fully compensated prior to occurring.

COMPENSATORY MITIGATION LAND ACQUISITION

1. Method of Acquisition. *Compensation lands required to meet this condition shall be acquired in whole or in part either:*

- *By the project owner for donation, as approved by the CPM, to a state or federal land management agency or non-profit land management organization,*
- ~~*By BLM with funds provided by the project owner,*~~
- *By a third party approved by the CPM to acquire or donate the lands with funds provided by the project owner, or*
- *By the National Fish and Wildlife Foundation (NFWF) with in lieu funds deposited into the Renewable Energy Action Team (REAT) Account.*

If the project owner chooses to delegate responsibility for acquisition of all or portions of compensation lands to a third party such as a nongovernmental organization supportive of desert habitat conservation, such delegation shall be subject to approval by the CPM, in consultation with the project owner and CDFG, BLM and USFWS, prior to land acquisition, enhancement or management activities. ~~The CPM shall provide a written response and explanation to the project owner within 30 days of receiving the proposal. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be executed and implemented within 18 months of the Energy Commission's certification of the project or initiation of each phase of the project.~~

2. Selection Criteria for Compensation Lands*. The compensation lands selected for acquisition to meet Energy Commission requirements shall:*

- *be within ~~in~~ or near FTHL Management Areas (MAs) in the Colorado Desert, with potential to contribute to FTHL habitat connectivity and*

build linkages between FTHL MAs, known populations of FTHLs, and/or other preserve lands;

- *provide high to moderate quality habitat for FTHL with capacity to regenerate naturally when disturbances are removed, though moderate to good quality habitat is acceptable near protected FTHL habitats;*

- *be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long- term by a public resource agency or a non-governmental organization dedicated to habitat preservation;*

- *be connected to lands where FTHLs can be reasonably expected to occur currently occupied by FTHL, based on habitat or historic occurrences, ideally with populations that are stable, recovering, or likely to recover;*

- *ideally contain soils that are stable and not suffering erosional damage;~~.~~*

- *not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration;*

- *not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; and*

- *have water and mineral rights included as part of the acquisition, unless the CPM, in consultation with CDFG, BLM and USFWS, agrees in writing to the acceptability of land without these rights.*

These requirements may be adjusted upon mutual agreement with the resource agencies (CEC, CDFG, BLM, and USFWS) depending on the specific lands available and in consideration of larger flat-tailed horned lizard mitigation efforts.

3. Review and Approval of Compensation Lands Prior to Acquisition*. ~~If the project owner assumes responsibility for acquiring the compensation lands,~~ ~~t~~The project owner shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for flat-tailed horned lizard, burrowing owl, golden eagle, American badger, and desert kit fox in relation to the criteria listed above and must be approved by the CPM. The CPM will share the proposal with and consult with CDFG, BLM, and the USFWS*

before deciding whether to approve or disapprove the proposed acquisition. ~~The CPM shall provide a written response and explanation to the project owner within 30 days of receiving the proposal.~~

***4. Compensation Lands Acquisition Conditions**: If the project owner assumes responsibility to acquire the compensation lands, the project owner shall comply with the following conditions relating to acquisition of the compensation lands after the CPM, in consultation with CDFG, BLM and the USFWS, has approved the proposed compensation lands:*

a. *Preliminary Report: The Project owner, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary documents for the proposed compensation land to the CPM. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPM, in consultation with CDFG, BLM and the USFWS. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board.*

b. *Title/Conveyance: The Project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement as required by the CPM in consultation with CDFG. Any transfer of a conservation easement or fee title must be to CDFG, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to BLM or other public agency approved by the CPM in consultation with CDFG. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFG or another entity approved by the CPM. If an entity other than CDFG holds a conservation easement over the compensation lands, the CPM may require that CDFG or another entity approved by the CPM , in consultation with CDFG, be named a third party beneficiary of the conservation easement. The project owner shall obtain approval of the CPM, in consultation with CDFG, of the terms of any transfer of fee title or conservation easement to the compensation lands.*

c. *Property Analysis Record. Upon identification of the compensation lands, the Project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and*

management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the CPM, in consultation with CDFG, before it can be used to establish funding levels or management activities for the compensation lands.

***5. Compensation Lands Acquisition Costs**: If the project owner assumes responsibility to acquire all or a part of the compensation lands to meet Energy Commission and CESA requirements, the project owner shall fund the following items in addition to actual land costs:*

- *Level 1 Environmental Site Assessment,*
- *Appraisal,*
- *Closing and Escrow costs,*
- *Biological survey for determining mitigation value of the land, and*
- *Agency costs to accept the land.*

6. Compensatory Mitigation Land Improvements:

a. ***Land Improvement Requirements**: The project owner shall fund activities that the CPM, in consultation with the CDFG, USFWS, and BLM, requires for the initial protection and habitat improvement of the compensation lands. These activities will be implemented by the state or federal land management agency or non-profit organization holding the land or their representative. The specific activities will vary depending on the condition and location of the land acquired, but may include:*

- *Installation of signs;*
- *Removal of trash;*
- *Construction and repair of fences;*
- *Surveys of boundaries and property lines;*
- *Removal of invasive plants;*
- *Removal of roads; and*
- *Similar measures to protect habitat and improve habitat quality.*

The costs of these activities are estimated at $27 per acre, but will vary depending on the measures that are required for the compensation lands. A non-profit organization, CDFG, or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the CPM in consultation with CDFG, and if it is

authorized to participate in implementing the required activities on the compensation lands. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.

b. ***Compensation Lands Improvement Costs****: Land improvement costs will vary depending on the activities undertaken. The cost of those actions is estimated at $27 per acre. Assuming all the compensation is met with land acquisition, the total land improvement cost is estimated to be $189,049.*

~~*If the project owner uses BLM to acquire all or a portion of the compensation lands, the project owner shall provide the BLM with funds for items a. to e. above as well as actual land costs.*~~

If the project owner uses in lieu funds deposited into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF) to acquire some or all of the compensation lands, the project owner shall provide funds for ~~items a. to e.~~ numbers 4-6, above and long-term maintenance and management funding ~~above~~ as well as actual land costs and third party administrative costs. If the Project owner elects to use the REAT Account with NFWF, the Project owner will be responsible for providing sufficient funds to cover actual acquisition costs and fees ~~not to exceed 10% of the estimated costs below~~.

Estimated costs associated with acquisition of compensation lands are:

ESTIMATED LAND ACQUISITION COSTS PER ACRE OR PARCEL

	ACQUISITION METHOD		
COST ITEM	***PROJECT OWNER***	~~***BLM***~~ ***NA***	***REAT/NFWF***
Land cost/acre	*Covered by Owner*	~~*$500*~~ *NA*	*$500*
Level 1 Environmental Site Assessment	*Covered by Owner*	~~*$3,000*~~ *NA*	*$3,000*
Appraisal/parcel	*Covered by Owner*	~~*$5,000*~~ *NA*	*$5,000*
Closing and Escrow Costs/parcel	*Covered by Owner*	~~*$5,000*~~ *NA*	*$5,000*
Biological Survey/parcel	*Covered by Owner*	~~*$5,000*~~ *NA*	*$5,000*
3rd Party Admin. Costs/parcel	*$0*	~~*$0*~~ *NA*	*10% of land cost*

Agency Cost to Accept	*~~$580,896.23~~ $580,897*	*~~$580,896.23~~ NA*	*~~$580,896.23~~ $580,897*

These costs are current estimates and shall be modified based on actual costs or with the concurrence of the REAT agencies. The number of parcels is estimated based on 160 acres per parcel.

TOTAL ESTIMATED LAND ACQUISITION COSTS

	ACQUISITION METHOD		
COST ITEM	***PROJECT OWNER***	***~~BLM~~ NA***	***REAT/NFWF***
Acres Purchased	*~~6618.7~~ 7,001.8*	*~~6618.7~~ NA*	*~~6618.7~~ 7,001.8*
Parcels Purchased	*~~41.4~~ 45*	*~~41.4~~ NA*	*~~41.4~~ 45*
Land cost	*Covered by Owner*	*~~$3,309,350~~ NA*	*~~$3,309,350~~ $3,500,900*
Level 1 Environmental Site Assessment	*Covered by Owner*	*~~$124,100~~ NA*	*~~$165,468~~ $135,000*
Initial site work at $27 per acre	*$189,049*	*NA*	*$189,049*
Appraisal	*Covered by Owner*	*~~$206,834~~ NA*	*~~$206,834~~ $225,000*
Closing and Escrow Costs	*Covered by Owner*	*~~$206,834~~ NA*	*~~$206,834~~ $225,000*
Biological Survey	*Covered by Owner*	*~~$206,834~~ NA*	*~~$206,834~~ $225,000*
3rd Party Admin. Costs	*$0*	*~~$0~~ NA*	*~~$330,935~~ $350,090*
Agency Cost to Accept	*~~$580,896~~ $614,408*	*~~$580,896~~ NA*	*~~$580,896~~ $614,408*
TOTAL	*~~$4,179,814~~ unknown*	*~~$4,634,850~~*	*~~$4,965,785~~ $5,464,447*

~~COMPENSATORY MITIGATION LAND IMPROVEMENT~~

~~1. Land Improvement Requirements~~*~~: The Project owner shall fund activities that the CPM, in consultation with the CDFG, USFWS and BLM, requires for the initial protection and habitat improvement of the compensation lands. These activities will be implemented by the state or federal land management agency or non-profit organization holding the~~*

~~*land or their representative. The specific activities will vary depending on the condition and location of the land acquired but may include:*~~

- ~~*Installation of signs,*~~
- ~~*Removal of trash,*~~
- ~~*Construction and repair of fences,*~~
- ~~*Surveys of boundaries and property lines,*~~
- ~~*Removal of invasive plants,*~~
- ~~*Removal of roads,*~~
- ~~*And similar measures to protect habitat and improve habitat quality.*~~

~~*The costs of these activities are estimated at $250 an acre, but will vary depending on the measures that are required for the compensation lands. A non-profit organization, CDFG or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the CPM in consultation with CDFG, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.*~~

~~***2. Compensation Lands Improvement Costs**: Land improvement costs will vary depending on the activities undertaken. The cost of those actions is $27/acre.*~~

~~*Assuming all of the compensation is met with land acquisition, the total land improvement costs is estimated to be $178,705.*~~

COMPENSATORY MITIGATION LAND LONG-TERM MANAGEMENT

***1. Long-term Management Requirements**: Long-term management is required to ensure that the compensation lands are managed and maintained to protect FTHL. This may include maintenance of signs, fences, removal of invasive weeds, and elimination of unauthorized use.*

***2. Long-term Management Plan:** The project owner ~~of or the entity responsible for management of the compensation lands~~ shall ~~prepare~~ fund the development of a Management Plan for the compensation lands for the entity that will be managing the lands. The Management Plan shall reflect site-specific enhancement measures on the acquired compensation*

lands. The plan shall be submitted for approval of the CPM, in consultation with CDFG, BLM and USFWS.

3. Long-term Management Costs: *For those compensation lands that are donated to or owned by the BLM, the long-term management costs will be determined by ~~BLM in consultation with the CDFG, CEC, and USFWS~~ a PAR or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands.*

*~~For those compensation lands that are donated to or owned by a state land management agency or a non-profit organization, t~~The Project owner shall provide money to establish an account with a non-wasting capital that will be used to fund the long-term maintenance and management of the compensation lands. The amount of money to be paid will be determined through an approved PAR or PAR-like analysis conducted for the compensation lands. The amount of required funding is initially estimated to be $692 for every acre of compensation lands. If compensation lands will not be identified and a PAR or PAR-like analysis completed within the time period specified for this payment (see verification section at the end of this condition), the project owner shall either provide initial payment of $4,845,246 (calculated at $692 an acre for 7001.8 acres) or the project owner shall include $4,845,246 to reflect this amount in the security that is provided to the Energy Commission under **Compensatory Mitigation Land Funds** section below. The amount of the required initial payment or security for this item shall be adjusted for any change in the project footprint. If an initial payment is made based on the estimated per-acre costs, the project owner shall deposit additional money as may be needed to provide the full amount of long-term maintenance and management funding indicated by a PAR or PAR-like analysis, once the analysis is completed and approved. If the approved analysis indicates less than $692 an acre will be required for long-term maintenance and management, the excess paid will be returned to the project owner. The project owner must obtain the CPM's approval of the entity that will receive and hold the long-term maintenance fund for the compensation lands.*

The CPM will consult with ~~the project owner and~~ CDFG before deciding whether to approve an entity to hold the project's long-term maintenance and management funds on any lands. ~~For any compensation lands that are not managed by a federal land management agency, the CPM, in consultation with the project owner and CDFG, will designate another state agency or non-profit organization to hold the long-term maintenance and management fee if the organization is qualified to manage the compensation lands in perpetuity.~~

~~If CDFG takes fee title to the compensation lands, CDFG shall determine whether it will hold the long-term management fee in the special deposit~~

~~*fund, leave the money in the REAT Account, or designate another entity to manage the long-term maintenance and management fee for CDFG and with CDFG supervision.*~~

The long-term maintenance and management fee holder/manager shall be subject to the following conditions:

- *Interest. Interest generated from the initial capital long-term maintenance and management fund shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action approved by the CPM in consultation with CDFG and is designed to protect or improve the habitat values of the compensation lands.*

- *Withdrawal of Principal. The long-term maintenance and management fee principal shall not be drawn upon unless such withdrawal is deemed necessary by the CPM, in consultation with CDFG, or the approved third-party long-term maintenance and management fee manager to ensure the continued viability of the species on the compensation lands. ~~If CDFG takes fee title to the compensation lands, monies received by CDFG pursuant to this provision shall be deposited in a special deposit fund established solely for the purpose to manage lands in perpetuity unless CDFG designates NFWF or another entity to manage the long-term maintenance and management fee for CDFG.~~*

- *Pooling Funds. ~~A CPM-~~ An entity approved ~~non-profit organization qualified~~ to hold long-term maintenance and management fees for the project ~~solely for the purpose to manage lands in perpetuity~~, may pool the fund with other funds with similar non-wasting funds that it holds for other projects for ~~the operation, management, and protection of the~~ long-term maintenance and management of compensation lands for local populations of FTHL. However, for reporting purposes, the long-term maintenance and management fee fund must be tracked and reported individually to the CDFG and CPM.*

- *Reimbursement Fund. The project owner shall provide reimbursement to CDFG or an approved third party for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to ~~reasonable expenses incurred during title, easement,~~ and document~~ation~~ review costs incurred from other state agency reviews, overhead related to providing compensation lands to CDFG or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.*

- *Long-term management on lands donated to or owned by BLM are to be determined by BLM and are currently anticipated to include costs associated with managing the lands for the benefit of the FTHL that are different from the management activities generally implemented by BLM on its lands. Such tasks may include dedicating a one-quarter time biologist and one one-half time ranger for patrols. The estimated cost of this long-term management is $692 per acre for a total of ~~$4,580,140~~ $4,845,246. This amount shall be adjusted based on final analysis by ~~the BLM and/or~~ a PAR or PAR-like analysis.*
  If the compensation lands are administered with in lieu funds deposited into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF), the project owner shall pay the following additional fees:

  - *Project Specific Account Establishment - $12,000*

  - *Management fee for acquisition and enhancement – 3% of all acquisition and enhancement costs*

  - *Management fee for long-term management account – 1% of long-term management costs*

  - *Cost to Call for and Process Pre-Proposal Modified RFP or RFP – $30,000*

COMPENSATORY MITIGATION LAND FUNDS

***1. Compensation Mitigation Fund**: The project owner shall provide funding for acquisition, improvement, and long-term management of FTHL compensation land. The current estimated funding shall be ~~$9,931,405~~ $10,309,692 based on the costs itemized below. This amount shall be updated and verified prior to payment and shall be adjusted to reflect actual costs or more current estimates during phasing:*

EXAMPLE of TOTAL COMPENSATION LAND COSTS

	ACQUISITION METHOD		
COST ITEM	***PROJECT OWNER***	***~~BLM~~ NA***	***REAT/NFWF***
Acres Purchased	*~~6618.7~~ 7,001.8*	*~~6618.7~~ NA*	*~~6618.7~~ 7,001.8*
Parcels Purchased	*~~41.4~~ 45*	*~~41.4~~ NA*	*~~41.4~~ 45*
Land Acquisition Cost	*~~$4,179,814~~*	*~~$4,634,850~~ NA*	*~~$4,965,785~~ $5,464,447*

~~*Land Improvement Cost*~~	~~*$178,705*~~	~~*$178,705*~~ *NA*	~~*$178,705*~~
Long-term Management Cost	~~*$4,580,140*~~ *$4,845,246*	~~*$0*~~ *NA*	~~*$4,580,140*~~ *$4,845,246*
NFWF Fees	*$0*	~~*$0*~~ *NA*	~~*$206,775*~~ *$254,386*
TOTAL	~~*$8,938,660*~~ ***$10,309,692***	~~*$4,813,555*~~ *NA*	~~*$9,931,405*~~ ***$10,564,079***

***2. Fund Payment**: Because the project is phased, the mitigation funding will also be phased. The phasing of funding will ensure that the security is in place to ensure mitigation for any impact before it occurs. This will be accomplished by requiring funding for all the mitigation necessary to mitigate the impacts associated with a specific phase. Specific payments shall reflect the approach chosen by the project owner for land acquisition and shall include funds for land enhancement and long-term management consistent with the amount of land to be disturbed during each phase. The project owner shall make the following compensatory mitigation payments based on the following project phasing and assuming REAT/NFWF funding:*

TIME	***PROJECT ACTIVITY***	***MITIGATION PAYMENT***
Phase 1a – October 2010	*Start of construction, no more than 378.3 acres of* ~~*site*~~ *project disturbance activities*~~.~~*, but mitigation will be required for 761.4 acres.*	~~*$574,758*~~ *$1,188,183*
Phase 1b – (estimated after the close of financing during the 1st quarter 2011)	*Completion on Phase 1 construction (300 MW); mitigation provided for 2,682.3 acres*	~~*$3,819,470*~~ *$4,026,444* *less adjustments from phase 1a and for phase 1 b for land acquisition method, and land improvement and long-term management costs*
Phase 2	*Initiation and completion of Phase 2 (450 MW) mitigation provided for 3,558.1 acres*	~~*$5,052,854*~~ *$5,349,452* *less adjustments from Phase 1 b and for land acquisition method, and land improvement and long-term management costs*

TOTALS	*7,001.8 acres*	***$ 10,564,079 w/ NFWF***

4. REAT/NFWF Payment*: If the project owner elects to comply with the requirements in this condition for acquisition of compensation lands, initial protection and habitat improvement on the compensation lands, long-term maintenance and management of the compensation lands by funding, or any combination of these three requirements by providing funds to implement those measures into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF),. To use this option, the Project owner shall make an initial deposit to the REAT Account in an amount equal to the estimated costs (as set forth in the* ***Compensation Mitigation Fund*** *section in this Condition) of ~~administering~~ implementing these requirements.*

If the actual cost of the acquisition, initial protection and habitat improvements, or long-term funding is more than the estimated amount initially paid by the project owner, the project owner shall make an additional deposit into the REAT Account sufficient to cover the actual acquisition costs, the actual costs of initial protection and habitat improvement on the compensation lands, or the long-term funding requirements as established in an approved PAR or PAR-like analysis. If those actual costs or PAR projections are less than the amount initially transferred by the applicant, the remaining balance shall be returned to the project owner.

5. Mitigation Security*: The Project owner shall provide financial assurances to the CPM with copies of the document(s) to BLM, CDFG and the USFWS, to guarantee that an adequate level of funding is available to implement the mitigation required by this condition that are not completed ~~is available~~ prior to the start of ground-disturbing activities for each phase of the project discussed in the described in section 2 immediately above. Financial assurances shall be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account, or another form of security ("Security")approved by the CPM in consultation with CDFG. Prior to submitting the Security to the CPM, the project owner shall obtain the CPM's approval, in consultation with CDFG, of the form of Security. The CPM may draw on the Security if the CPM determines the project owner has failed to comply with the requirements specified in this condition.*

The CPM may use money from the Security solely for implementation of the requirements of this condition. ~~or if nesting of mitigation is obtained, to satisfy the conditions of BIO-17.~~ The CPM's use of the security to implement measures in this condition may not fully satisfy the Project owner's obligations under this condition. ~~Any amount of the~~ The Security ~~that is not used to carry out mitigation~~ shall be returned to the Project owner in whole or

in part upon successful completion of the associated requirements in this condition. ~~Financial assurance can be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security"). Prior to submitting the Security to the CPM, the Project owner shall obtain the CPM's approval, in consultation with CDFG, BLM and the USFWS, of the form of the Security.~~

The amount of the Security shall correspond to the mitigation fund payments described in "fund payment" above.

***6.** **Audit**: The project owner may request the CPM to for an independent audit of the compensatory mitigation funds.*

***Verification:** The project owner shall provide the CPM with written notice of intent to start ground disturbance at least 30 days prior to the start of ground-disturbing activities on the project site.*

If the mitigation actions required under this condition are not completed at least 30 days prior to the start of ground-disturbing activities, the Project owner shall provide the CPM and CDFG with an approved Security ~~in accordance with this condition of certification~~ at least 30 days prior to beginning Project ground-disturbing activities. ~~Financial assurance can be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security"). Prior to submitting the Security to the CPM, the project owner shall obtain the CPM's approval, in consultation with CDFG, BLM and the USFWS, of the form of the Security. The project owner, or an approved third party, shall complete and provide written verification to the CPM, CDFG, BLM and USFWS of the compensation lands acquisition and transfer within 18 months of the start of Project ground-disturbing activities.~~

No later than 12 months after the start of any phase of ground-disturbing project activities, the project owner shall submit a formal acquisition proposal to the CPM describing the parcels intended for purchase, and shall obtain approval from the CPM, in consultation with CDFG, BLM and USFWS, prior to the acquisition. ~~The agencies shall have 30 days to respond to the CPM.~~ If NFWF or another approved third party is handling the acquisition, the project owner shall fully cooperate with the third party to ensure the proposal is submitted within this time period. The project owner or an approved third party shall complete the acquisition and all required transfers of the compensation lands, and provide written verification to the CPM, CDFG, BLM and USFWS of such completion, no later than 18 months after the issuance of the Energy Commission Decision. If NFWF or another approved third party is being used for the acquisition, the project owner shall ensure that funds needed to accomplish the acquisition are transferred in timely manner to facilitate the planned acquisition and to ensure the land can be acquired and transferred prior to the 18-month deadline.

The project owner shall complete and submit to the CPM a PAR or PAR-like analysis no later than 60 days after the CPM approves compensation lands for acquisition associated with any phase of construction. The project owner shall fully fund the

required amount for long-term maintenance and management of the compensation lands for that phase of construction no later than 30 days after the CPM approves a PAR or PAR-like analysis of the anticipated long-term maintenance and management costs of the compensation lands. Written verification shall be provided to the CPM and CDFG to confirm payment of the long-term maintenance and management funds.

No later than 60 days after the CPM determines what activities are required to provide for initial protection and habitat improvement on the compensation lands for any phase of construction, the project owner shall make funding available for those activities and provide written verification to the CPM of what funds are available and how costs will be paid. Initial protection and habitat improvement activities on the compensation lands for that phase of construction shall be completed, and written verification provided to the CPM, no later than six months after the CPM's determination of what activities are required on the compensation lands.

The project owner or an approved ~~If a~~ third party ~~is responsible for management of the compensation lands, they~~ shall provide the CDFG, BLM and USFWS with a management plan for the compensation lands associated with any phase of construction within 180 days of the land or easement purchase, as determined by the date on the title. The CPM, in consultation with CDFG, BLM and the USFWS, shall approve the management plan after its content is acceptable to the CPM.

Within 90 days after completion of all project related ground disturbance, the project owner shall provide to the CPM, CDFG, BLM and USFWS an analysis, based on aerial photography, with the final accounting of the amount of habitat disturbed during Project construction. This shall be the basis for the final number of acres required to be acquired.

If electing to satisfy the requirements of this condition by utilizing the options created by CDFG pursuant to SBX8 34, the project owner shall notify the Energy Commission that it would like a determination that the Project's in-lieu fee proposal meets CEQA and CESA requirements.

STAFF COMMENT:

Based on the applicant's submission of details regarding phased mitigation, staff calculates that the total number of acres of FTHL habitat impacted equals 6,445.0 acres, but that compensatory mitigation should be based on the acquisition of 7,001.8 acres. Staff's calculation of impacts to FTHL habitat are based on applicant's filings and representations. (*Applicant's Submittal of Information Requested at the August 16, 2010 Hearing*; *Applicant's Submittal of Post-Hearing Brief*, pp. 25-27, *Applicant's Submittal of Reply Brief, p. 17*.)

The total acreage that would be impacted during Phase 1A is 378.3 acres. This acreage total includes the onsite and offsite transmission line, onsite and offsite waterline, main services complex, substation, roadwork, and the installation of 300 SunCatcher pedestals. Since staff is only concerned with compensation mitigation for

those lands occupied by FTHL, staff does not consider the impact acreage for the portion of the waterline located off the project site along the Evan Hewes ROW, which is not FTHL habitat. The total acreage of FTHL habitat on the project site associated with proposed waterline is 3.2 acres.

92.8 acres of FTHL habitat in the FTHL Yuha Desert Management Area (MA) outside of the project site will also be impacted due to construction of the transmission line for Phase 1A. Impacts within MAs require a higher mitigation ratio of 6:1. Therefore, 92.8 acres x 6 = 556.8 acres need to be added to Phase 1A compensation, requiring a mitigation security payment of $868,028 for the transmission line portion of Phase 1A. So not to double count the 92.8 acres in determining FTHL compensation acreage, 92.8 acres is subtracted from 297.4 acres, which equals 204.6 acres, which will be compensated at a 1:1 ratio, requiring a mitigation security of $319,463. Therefore, 204.6 acres + 556.8 acres = 761.4 total acres that need compensatory mitigation for Phase 1A with a total of $1,188,183 ($319,283 + $868,900 = $1,188,183) for the Phase 1A mitigation security. These security estimates are calculated using the REAT Biological Resources Mitigation/Compensation Cost Estimate Table to calculate the estimates for acquisition by REAT/NFWF, which is appended to this document. The mitigation payment amounts are based on acreage impacts provided by the applicant for each phase of the project.

Phase	**Acreage of FTHL habitat impacted**	**Mitigation Ratio**	**Compensation Acreage**	**Mitigation Payment**
1A	204.6 acres	1:1	204.6 acres	$319,283 ($301,776 without NFWF)
1A	92.8 acres Offsite transmission line in FTHL Management Area	6:1	556.8 acres	$868,900 ($821,254 without NFWF)
Total for 1A	**297.4 acres**		**761.4 acres**	**$1,188,183** **($1,123,030 without NFWF)**
1B	**2682.3 acres**	**1:1**	**2682.3 acres**	**$4,026,444** **($3,945,211 without NFWF)**
2	**3558.1 acres**	**1:1**	**3558.1 acres**	**$5,349,452** **($5,241,452 without NFWF)**

The PMPD should remove the bulleted point, “By BLM with funds provided by the project owner” because this is not an option available to the project owner. (RT 7/27/10 147:20-24.)

Staff has struck the language allowing the applicant to fulfill its mitigation responsibilities by executing and “implementing” an agreement to delegate land acquisition to an approved third party. Staff and applicant have conceptually agreed that the mitigation requirements themselves must be fulfilled within 18 months of the Energy Commission’s certification.

The inclusion of mitigation of impacts to burrowing owl, golden eagle, American badger, and desert kit fox within this Condition of Certification was done to facilitate nesting of mitigation and thus assist the applicant in efficiently accomplishing mitigation.

Regardless of whether the applicant itself assumes, or else delegates responsibility for land acquisition to an approved third party, the project owner must remain responsible for preparing and receiving approval of a formal acquisition proposal prior to acquisition.

If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFG or another entity approve by the CPM. Staff inserted language above to address all possible permutations of title and conveyance, which the PMPD does not.

The proposed condition would cap costs at 10% of the estimated costs contained in the condition. Certainly, the REAT agencies intended the REAT Biological Resources Mitigation/Compensation Cost Estimate Table to be, by definition, an estimate of mitigation costs. (RT 7/27/10 142:18-22.) Only the mitigation options under Senate Bill 34 would cap the project owner’s cost responsibility for mitigation. The project owner must pay the full and actual costs of mitigation under all other mitigation options. (RT 7/27/10 148:15-149:18.) Capping the project owner’s cost responsibility would frustrate the REAT’s goal of ensuring that solar project applicants adequately mitigate all significant impacts as required by law.

As discussed in the STAFF COMMENTS on the PMPD pp. 45-46 and as agreed to by the applicant, above, the project owner’s cost responsibility for the LTMM costs under this condition must be based on a PAR analysis.

PMPD, pp. 81-83 (BIO-11)

FLAT-TAILED HORNED LIZARD COMPLIANCE VERIFICATION

BIO-11 *The project owner shall provide Energy Commission staff, BLM, CDFG, USFWS, and USACE representatives with reasonable access to the project site and compensation lands under the control of the project owner and shall*

otherwise fully cooperate with the Energy Commission staff, CDFG, USFWS, USACE, and BLM's efforts to verify the project owner's compliance with, or the effectiveness of, mitigation measures set forth in the conditions of certification. The project owner shall hold the Designated Biologist, the Energy Commission staff, CDFG, USFWS, USACE, and BLM harmless for any costs the project owner incurs in complying with the management measures, including stop work orders issued by the CPM, the BLM Biologist, or the Designated Biologist. The Designated Biologist shall do all of the following:

[…]

- *Ensure that all observations of FTHL and their sign during construction project activities are reported to the Designated Biologist for inclusion in the next monthly compliance report submitted to the BLM Biologist and the CPM.*
- *Should the Designated Biologist, in consultation with the BLM Biologist and the CPM, identify area(s) where the speed limit must be lowered on stabilized or paved roads due to FTHL occurrences, roadkill, and FTHL habitat quality, shall report these location(s) of reduced speed in the first monthly compliance report submitted to the BLM Biologist and the CPM following implementation of the speed limit change and installation of the signage.*

- *No later than 45 days after the initial production of energy in the project's equipment, provide the BLM Biologist and the CPM a FTHL Mitigation Report that shall include, at a minimum: 1) a copy of the table in the BRMIMP with notes showing when each of the mitigation measures was implemented; 2) all available information about project-related incidental take of FTHLs; 3) information about other project impacts on the FTHL; 4) construction dates; 5) an assessment of the effectiveness of conditions of certification in minimizing and compensating for project impacts; 6) recommendations on how mitigation measures might be changed to more effectively minimize and mitigate the impacts of future projects on the FTHL; and 7) any other pertinent information, including the level of take of the FTHL associated with the project.*

[…]

STAFF COMMENT:

The edits reflect the stipulation between staff and the applicant reached at the August 10, 2010 workshop. (Ex. 147; Ex. 308.) Staff and the applicant stipulated to the applicant's maintaining the 25 miles per hour speed limit on paved and stabilized roads, but allowing the Designated Biologist to lower the speed limit in specific areas to lessen wildlife impacts.

PMPD, pp. 89-102 (BIO-17)

~~WATERS OF THE U.S., WATERS OF THE STATE~~ LAKE AND STREAMBED AND PENINSULAR BIGHORN SHEEP FORAGING HABITAT IMPACT MINIMIZATION AND COMPENSATION MEASURES

BIO-17 *The project owner is required to compensate for the loss of ~~247~~ 881 acres of ephemeral wash foraging habitat for the Peninsular bighorn sheep (PBHS) ~~defined as the 28% of the ephemeral washes on site that provide sufficient vegetation to potentially provide PBHS foraging opportunities~~, as well as the functional loss of ~~38.2 of permanently impacted,14 acres of temporarily impacted, 1.63 acres of indirectly impacted waters of the U.S and 48 acres of indirectly impacted~~ state jurisdictional waters~~ of the state~~. Mitigation presented within this proposed Condition of Certification is designed to mitigate for impacts resulting from implementation of ~~the alternative preliminarily determined by the U.S. Army Corps of Engineers to be the least environmentally damaging practicable alternative~~ Drainage Avoidance #1 Alternative. This alternative substantially reduces impacts to ~~federal and~~ state jurisdictional waters. Further review and possible revision of compensation land acreage requirements will be necessary following determination of the final project footprint and impacts. The acquisition of jurisdictional state waters can be included with the FTHL, burrowing owl, golden eagle, American badger, and desert kit fox mitigation lands (**BIO-10**) if they are acquired within 18 months of start of construction. If FTHL habitat mitigation lands are not acquired within 18 months, the project owner shall independently provide 48 acres of off-site desert ephemeral wash habitat. ~~If changes are made to the project footprint, the mitigation requirement will be equal to the amount of the 247 acres of ephemeral washes on the site that provide potential PBHS foraging habitat at a 1:1 ratio, the amount of permanently impacted waters of the U.S. at a 5:1 ratio and the amount of temporarily impacted waters of the U.S. at a 1:1 ratio.~~*

*If all or any portion of the acquired habitat compensation lands from **BIO-10** meets the criteria for bighorn sheep foraging habitat and ~~provide for the replacement of the functional values associated with the impacted waters of the U.S. and the impacted waters of the state~~ state waters compensation lands, then the requirements of **BIO-17** are reduced by that amount.*

~~In coordination with the U.S. Army Cops of Engineers, the U.S. Fish and Wildlife Service and State Parks, the applicant has proposed to conduct enhancement and rehabilitation of Carrizo Creek and marsh located west/northwest of the project on the Anza Borrego State Park. This area was chosen because it is within the same watershed as the project and is within known PBHS populations. The measures are focused on Tamarisk (Tamarix ssp.) removal which will restore and enhance the aquatic functions of this area~~

and PBHS foraging habitat. If this mitigation option is chosen, the applicant shall do the following:

- *Carrizo Creek Enhancement Plan: the applicant shall prepare an enhancement and rehabilitation plan that shall cover approximately 25 miles of Carrizo Creek from the headwaters downstream through Carrizo Marsh (Carrizo Creek Enhancement Plan). The enhancement and rehabilitation plan shall be prepared in accordance with the Corps' and EPA's Final Mitigation Rule (33 CFR Part 325 and 332 [40 CFR Part 230]) and will include detailed methods for the initial removal, retreatment methods, limited native species replanting, monitoring and reporting protocols, and performance standards.*

- *Mitigation Plan. Prepare a Mitigation Plan which provides for the rehabilitation and enhancement of 247 ephemeral washes consistent with the Carrizo Creek Plan. Although the applicant will prepare the enhancement and rehabilitation plan for the entire 25-mile reach of Carrizo Creek, the applicant will only be responsible for the enhancement and rehabilitation the amount necessary to mitigate direct and indirect impacts to waters of the U.S. and PBHS foraging habitat. The amount of mitigation shall be 247 acres of the Carrizo Creek. The Mitigation Plan shall include the measures needed to rehabilitate and enhance 247 acres of Carrizo Creek, monitoring of the rehabilitated and enhanced areas for 5 years, submitting annual reports to the CPM, Corps, USFWS, CDFG and BLM; success criteria; long term management requirements; and adaptive management provisions if the success criteria are not being met. The Mitigation Plan shall be submitted to the CPM, Corps, and USFWS for approval.*

- *Long Term Management. Following completion of the initial 5 year monitoring period and concurrence from the Corps that the Mitigation Plan's success criteria, the long term management shall be the responsibility of State Parks and shall be done in connection with the overall management of the Anza Borrego State Park.*

- *Funding. The applicant shall be responsible for funding the measures outlined in the approved Management Plan. It is estimated that the initial rehabilitation and enhancement will cost approximately $494,000 ($2,000 per acre) and that the 5 years of monitoring and active management will cost approximately $230,000 ($60,000 for the first three years when it is anticipated that some follow up control for tamarisk will be required as well as replanting of native vegetation and other*

~~weed control; $50,000 for years four and five of the monitoring period where it is anticipated that efforts will be limited mostly to monitoring and maintenance). Long term management is estimated to cost $170,924 (based on an assumed cost of $692 per acre). The estimates regarding the cost associated with carrying out the enhancement/rehabilitation methods, monitoring and maintenance are based on Tamarisk Coalition cost estimates that were updated as of 2008. These numbers are appropriate for planning purposes; the actual cost, however, will depend on the degree of infestation present. The total cost of meeting the requirements of this condition is estimated to be $994,924.~~

- ~~Security. The project owner shall provide security to ensure satisfaction of the terms of this condition as follows: (1) prior to initiation of ground-disturbing activity for Phase 1A, the applicant shall provide security in the amount of $494,000 to ensure the implementation of the enhancement and rehabilitation measures; (2) remainder of the security associated with this mitigation measure equaling $400,924 shall be provided prior to initiation of ground-disturbing activity for Phase 1B. For purposes of this Condition, financial close shall be defined as sixty days following receipt of the DOE loan guarantee.~~

~~Should the applicant not proceed with the above described mitigation of the Carrizo Creek, the applicant shall either, in coordination with the CEC, BLM, Corps, USFWS and CDFG, identify similar enhancement and rehabilitation measures on state or federally owned lands or acquire lands on which similar enhancement and rehabilitation measures can be implemented. If alternative measures are proposed, the mitigation land shall meet the following criteria~~. *Although the criteria for ephemeral wash foraging habitat and habitat of the waters of U.S. and of waters of the state are listed separately below, any alternative compensation lands acquired pursuant to this conditions must meet both sets of criteria.*

1. *Selection Criteria for Compensation Lands: Land selected as compensation for loss of ephemeral wash PBHS foraging habitat must satisfy the following criteria;*

   - *Be within the "Essential Habitat Line" for PBHS, as delineated by the USFWS Recovery Plan for Bighorn Sheep in the Peninsular Ranges, California (USFWS 2000). If sufficient available suitable habitat is not found within the Essential Habitat Line, then habitat immediately adjacent to the Essential Habitat Line must be purchased, and also of equal or higher quality habitat than present within the project site.*

   - *Be comprised of the same or higher quality habitat of demonstrated*

known utilization by PBHS as forage, and selected in conjunction with input from CDFG and the USFWS.

Land selected as compensation for impacts to ~~waters of the U.S. and for impacts to waters of the~~ state jurisdictional waters must satisfy the following criteria:

- *Compensation land purchased in Sonoran creosote scrub habitat must include ephemeral washes with at least 48 acres of waters of the state jurisdictional ~~and 247 acres of~~ waters, mitigated at a 1:1 ratio ~~of the U.S. and must allow for enhancement measures that will fully mitigate for the functional values of waters of the U.S. and waters of the state impacted by the project~~.*

- *Be characterized by similar soil permeability, hydrological and biological functions as the impacted drainages.*

- *Located in the Colorado Desert.*

2. *Review and Approval of Compensation Lands Prior to Acquisition: The Project owner shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for FTHL in relation to the criteria listed above, and must be approved by the CPM. The CPM will share the proposal with and consult with ~~Corps,~~ CDFG, BLM, and the USFWS before deciding whether to approve or disapprove the proposed acquisition.*

3. *Compensation Lands Acquisition Requirements: The project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM, in consultation with ~~Corps,~~ CDFG, BLM, and the USFWS, has approved the proposed compensation lands:*

   a. *Preliminary Report. The Project owner, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the CPM. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPM, in consultation with ~~Corps,~~ CDFG, BLM and the USFWS. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission, and the Wildlife Conservation Board.*

   b. *Title/Conveyance. The Project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the CPM in*

consultation with CDFG. Any transfer of a conservation easement or fee title must be to CDFG, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to BLM or other public agency approved by the CPM in consultation with CDFG. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFG or another entity approved by the CPM. If an entity other than CDFG holds a conservation easement over the compensation lands, the CPM may require that CDFG or another entity approved by the CPM, in consultation with CDFG, be named a third party beneficiary of the conservation easement. The Project owner shall obtain approval of the CPM, in consultation with CDFG, of the terms of any transfer of fee title or conservation easement to the compensation lands.

c. *Initial Protection and Habitat Improvement. The project owner shall fund activities that the CPM, in consultation with the Corps, CDFG, USFWS and BLM, requires for the initial protection and habitat improvement of the compensation lands. These activities will vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands. The costs of these activities are estimated at $27 an acre, but will vary depending on the measures that are required for the compensation lands. A non-profit organization, CDFG or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the CPM in consultation with CDFG, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.*

d. *Property Analysis Record. Upon identification of the compensation lands, the Project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the CPM, in consultation with CDFG, before it can be used to establish funding levels or management activities for the compensation lands.*

e. *Long-term Maintenance and Management Funding. The Project owner shall provide money to establish an account with non-wasting capital that will be used to fund the long-term maintenance and management of the compensation lands. The amount of money to be paid will be*

determined through an approved PAR or PAR-like analysis conducted for the compensation lands. The amount of required funding is initially estimated to be $692 for every acre of compensation lands. If compensation lands will not be identified and a PAR or PAR-like analysis completed within the time period specified for this payment (see the verification section at the end of this condition), the Project owner shall either provide initial payment of ~~$170,924~~ $609,652 (calculated at $692 an acre for ~~247~~ 881 acres) or the project owner shall include ~~$170,924~~ $609,652 to reflect this amount in the security that is provided to the Energy Commission under section 3.h. of this condition. The amount of the required initial payment or security for this item shall be adjusted for any change in the project footprint as described above. If an initial payment is made based on the estimated per-acre costs, the project owner shall deposit additional money as may be needed to provide the full amount of long-term maintenance and management funding indicated by a PAR or PAR-like analysis, once the analysis is completed and approved. If the approved analysis indicates less than $692 an acre will be required for long-term maintenance and management, the excess paid will be returned to the project owner. The project owner must obtain the CPM's approval of the entity that will receive and hold the long-term maintenance and management fund for the compensation lands. The CPM will consult with CDFG before deciding whether to approve an entity to hold the project's long-term maintenance and management funds. The project owner shall ensure that an agreement is in place with the long-term maintenance and management fund holder/manager to ensure the following requirements are met:

i. *Interest. Interest generated from the initial capital long-term maintenance and management fund shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action that is approved by the CPM in consultation with CDFG and is designed to protect or improve the habitat values of the compensation lands.*

ii. *Withdrawal of Principal. The long-term maintenance and management fund principal shall not be drawn upon unless such withdrawal is deemed necessary by the CPM, in consultation with CDFG, or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the species on the compensation lands.*

iii. *Pooling Long-Term Maintenance and Management Funds. An entity approved to hold long-term maintenance and management*

funds for the Project may pool those funds with similar non-wasting funds that it holds from other projects for long-term maintenance and management of compensation lands for local populations of ~~desert tortoise~~ FTHL. However, for reporting purposes, the long-term maintenance and management funds for this Project must be tracked and reported individually to the CPM and CDFG.

f. *Other Expenses. In addition to the costs listed above, the project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to the title and document review costs incurred from other state agency reviews, overhead related to providing compensation lands to CDFG or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.*

g. *Management Plan. The project owner shall ~~prepare~~ fund the development of a Management Plan for the compensation lands ~~in consultation with~~ for the entity that will be managing the lands. The Management Plan shall reflect site-specific enhancement measures for the drainages on the acquired compensation lands. The objective of the Management Plan shall be to enhance the wildlife value and the aquatic functions of the drainages and may include enhancement actions such as weed control, fencing to exclude livestock and OHVs, or erosion control. The plan shall be submitted for approval of the CPM, in consultation with CDFG, BLM and USFWS.*

h. *Mitigation Security. The project owner shall provide financial assurances as provided above to the CPM, with copies of the final document to CDFG, to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this condition that are not completed prior to the start of ground-disturbing project activities. Financial assurances shall be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") approved by the CPM in consultation with CDFG. Prior to submitting the Security to the CPM, the project owner shall obtain the CPM's approval, in consultation with CDFG, of the form of the Security. The CPM may draw on the Security if the CPM determines the project owner has failed to comply with the requirements specified in this condition. The CPM may use money from the Security solely for implementation of the requirements of this condition, The CPM's use of the Security to implement measures in this condition may not fully satisfy the project owner's obligations under this condition. The Security shall be returned to the Project owner in whole or in part upon successful completion of the associated requirements in this condition.*

Security shall be provided in the amount of ~~$894,924~~ $1,303,297 or

(~~$910,479~~ $1,330,203 if the project owner elects to use the REAT Account with NFWF pursuant to paragraph 3.h. of this condition, below). The security is calculated in part, from the items that follow but adjusted as specified below (consult ***Biological Resources Mitigation/Compensation Cost Estimate Table*** *for the calculation of estimated costs):*

- *land acquisition costs for compensation land, calculated at $500/acre x 881 acres = ~~$123,500~~$440,500;*
- *initial protection and habitat improvement activities on the compensation land, calculated at ~~$2,000~~ $27/acre x ~~247~~ 881 acres = ~~$494,000~~ $23,787;*
- *long-term maintenance and management on the compensation land calculated at $692/acre x ~~247~~ 881 acres = ~~$170,924~~ $609,652;*
- *pre-acquisition liability survey at no less than $3,000 per parcel (assuming 160 acres per ~~2~~ parcels): = ~~$6,000~~ $18,000;*
- *appraisal fees at $5,000 per parcel = ~~$10,000~~ $30,000;*
- *Agency cost to accept land calculated at (land cost x 15%) x 1.17 (17% of the 15% for overhead) = ~~$21,674.25~~ $44,050;*
- *Closing and escrow cost at $5,000 per parcel = ~~$10,000~~ $30,000;*
- *Third party administrative costs (land cost x 10%) = ~~$12,350~~ $44,050;~~.~~*
- *Biological survey for determining mitigation value of land at $5,000 per parcel = $30,000; and*
- *NFWF fee = ~~$63,031~~ $26,906 (if NFWF is used for acquisition).*

The amount of security shall be adjusted for any change in the project footprint as described above. In addition the amount of security specified in this section may be reduced in proportion to any of the secured mitigation requirements that the project owner has completed at the time the Security is required to be submitted. ~~that is required may be phased to be consistent with phased development. The amount of Security required would be based on the amount of waters of the U.S., waters of the state or PBHS impacted, whatever is the greatest. For Phase 1A, the amount of~~

~~security is estimated to be $46,536.05~~.[4] *In addition, the amount of Security specified in this section may be reduced in proportion to any of the secured mitigation requirements that the project owner has completed at the time the Security is required to be submitted. If all or any portion of required habitat compensation lands from* ***BIO-10*** *and* ***BIO-17*** *meets the criteria set forth for special status compensation lands may be used to fulfill that portion of the obligation for this condition, thus reducing the compensation acreage amount needed to fulfill the needed ~~247~~ 881 acres. Also, if the project owner transfers funds for long-term management of the compensation lands to an entity approved to hold those funds, the Security would not include any amount for long-term maintenance and management of the lands. The project owner will be entitled to partial or complete release of the Security as the secured mitigation requirements are successfully completed.*

i. The project owner may elect to comply with the requirements in this condition for acquisition of compensation lands, initial protection and habitat improvement on the compensation lands, or long-term maintenance and management of the compensation lands by funding, or any combination of these three requirements, by providing funds to implement those measures into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF). To use this option, the Project owner must make an initial deposit to the REAT Account in an amount equal to the estimated costs (as set forth in the Security section of this condition) of implementing the requirement. If the actual cost of the acquisition, initial protection and habitat improvements, or long-term funding is more than the estimated amount initially paid by the project owner, the project owner shall make an additional deposit into the REAT Account sufficient to cover the actual acquisition costs, the actual costs of initial protection and habitat improvement on the compensation lands, or the long-term funding requirements as established in an approved PAR or PAR-like analysis. If those actual costs or PAR projections are less than the amount initially transferred by the applicant, the remaining balance shall be returned to the project owner.

The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a non-governmental organization supportive of desert habitat conservation, by written agreement of the Energy Commission. Such delegation shall be subject to approval by the CPM, in consultation with CDFG, BLM and USFWS, prior to land acquisition, enhancement or management activities. Agreements to delegate land acquisition to an approved third

[4] This number is conservatively estimated based on the entire amount of ephemeral washes located within the Phase 1A disturbance area, although not all these washes will be disturbed and only a subset would be considered PBHS foraging habitat.

party, or to manage compensation lands, shall be executed and implemented within 18 months of the Energy Commission's certification of the project.

4. *The project owner may choose to satisfy its mitigation obligations identified in this condition by paying an in lieu fee instead of acquiring compensation lands, pursuant to Fish and Game code sections 2069 and 2099 or any other applicable in-lieu fee provision, to the extent the in-lieu fee provision is found by the Commission to be in compliance with CEQA and CESA requirements.*

5. *Notification. The project owner shall notify the CPM and CDFG in writing, at least five days prior to initiation of project activities in jurisdictional areas as noted and at least five days prior to completion of project activities in jurisdictional areas. The project owner shall notify the CPM and CDFG of any change of conditions to the project, the jurisdictional impacts, or the mitigation efforts, if the conditions at the site of a proposed project change in a manner which changes risk to biological resources that may be substantially adversely affected by the proposed project. The notifying report shall be provided to the CPM and CDFG no later than seven days after the change of conditions is identified. As used here, change of condition refers to the process, procedures, and methods of operation of a project; the biological and physical characteristics of a project area; or the laws or regulations pertinent to the project as defined below. A copy of the notifying change of conditions report shall be included in the annual reports.*

   - *Biological Conditions: a change in biological conditions includes, but is not limited to, the following: 1) the presence of biological resources within or adjacent to the project area, whether native or non-native, not previously known to occur in the area; or 2) the presence of biological resources within or adjacent to the project area, whether native or non-native, the status of which has changed to endangered, rare, or threatened, as defined in section 15380 of Title 14 of the California Code of Regulations.*

   - *Physical Conditions: a change in physical conditions includes, but is not limited to, the following: 1) a change in the morphology of a river, stream, or lake, such as the lowering of a bed or scouring of a bank, or changes in stream form and configuration caused by storm events; 2) the movement of a river or stream channel to a different location; 3) a reduction of or other change in vegetation on the bed, channel, or bank of a drainage, or 4) changes to the hydrologic regime such as fluctuations in the timing or volume of water flows in a river or stream.*

   - *Legal Conditions: a change in legal conditions includes, but is not limited to, a change in Regulations, Statutory Law, a Judicial or Court*

decision, or the listing of a species, the status of which has changed to endangered, rare, or threatened, as defined in section 15380 of Title 14 of the California.

6. *~~Waters of the U.S. and Waters of the State~~ Lake and Streambed Impact Minimization and Compensation Measures. The project owner shall provide a copy of Condition of Certification **BIO-17** from the Energy Commission Decision to all contractors, subcontractors, and the Applicant's project supervisors. Copies shall be readily available at work sites at all times during periods of active work and must be presented to any CDFG personnel or personnel from another agency upon demand. The CPM reserves the right to issue a stop work order or allow CDFG to issue a stop work order after giving notice to the project owner and the CPM, if the CPM in consultation with CDFG, determines that the project owner has breached any of the terms or conditions or for other reasons, including but not limited to the following:*

   - *The information provided by the applicant regarding streambed alteration is incomplete or inaccurate;*
   - *New information becomes available that was not known to it in preparing the terms and conditions;*
   - *The project or project activities as described in the SAA have changed; or*
   - *The conditions affecting biological resources changed or the CPM or BLM Biologist, in consultation with CDFG or USACE, determines that project activities would result in a substantial adverse effect on the environment. ~~Should project conditions change and impacts to bed, bank, or channel occur on any of the water ways along the reclaimed water pipeline route, a revised Lake and Streambed Alteration Agreement (LSAA) application must be submitted to the Commission in consultation with CDFG either (1) for a Commission determination that the revised LSAA application complies with CEQA and CESA; or (2) should the project conditions change after a final decision in on the AFC in this proceeding, through an application for amendment to the Commission's final decision issued in this proceeding.~~*

   Should project conditions change and impacts to bed, bank, or channel occur on any of the water ways along the reclaimed water pipeline route, a revised Lake and Streambed Alteration Agreement (LSAA) application must be submitted to the Commission in consultation with CDFG either (1) for a Commission determination that the revised LSAA application complies with CEQA and CESA; or (2) should the project conditions change after a final decision in on the AFC in this proceeding, through an

application for amendment to the Commission's final decision issued in this proceeding.

Verification: *~~Prior to groundbreaking activities, the applicant shall submit to the CPM an enhancement and rehabilitation plan for the Carrizo Creek and a Mitigation Plan for restoring the 247 acres of Carrizo Creek consistent with the restoration and rehabilitation plan. The applicant shall submit documentation that the enhancement and rehabilitation plan and the Mitigation Plan have been approved by the Corps, USFWS, and State Parks. No later than 18 months after ground-disturbing activities, the applicant shall submit documentation that the initial enhancement and rehabilitation measures have been completed. The applicant shall submit annual monitoring reports to the CPM, Corps, USFWS, CDFG, State Parks and CDFG documenting the success of the enhancement and rehabilitation activities. At the end of the initial 5 year monitoring period, applicant shall submit documentation to the CPM that the Corps has accepted the mitigation as being complete and documentation that funding has been provided to State Parks for the long term management of the mitigation lands and that State Parks has accepted such funds and has agreed to carry out long term management of these areas.~~*

~~If the applicant elects to acquire lands to satisfy this condition, no~~ No later than 12 months after the start of ground-disturbing project activities, the project owner, or a third-party approved by the CPM, in consultation with CDFG and BLM, shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase containing no less than 48 acres of state jurisdictional waters and ~~247~~ 881 acres of PBHS foraging habitat ~~and 247 acres of ephemeral drainages~~, and shall obtain approval from the CPM, in consultation with CDFG, BLM, and USFWS, prior to acquisition.

Draft agreements to delegate land acquisition to CDFG, BLM, or an approved third party and agreements to manage compensation lands shall be submitted to Energy Commission staff for review and approval (in consultation with CDFG) prior to land acquisition. Such agreements shall be mutually approved and executed at least 30 days prior to start of any project-related ground disturbance activities. The project owner shall provide written verification to the CPM that the compensation lands have been acquired and recorded in favor of the approved recipient(s). Alternatively, before beginning project ground-disturbing activities, the project owner shall provide Security in accordance with section 3.h of this condition. Within 180 days after the land purchase, as determined by the date on the title, the project owner shall provide the CPM with a management plan for review and approval, in consultation with CDFG, BLM, and USFWS, for the compensation lands and associated funds.

The project owner shall complete and submit to the CPM a PAR or PAR-like analysis no later than 60 days after the CPM approves compensation lands for acquisition. The project owner shall fully fund the required amount for long-term maintenance and management of the compensation lands no later than 30 days after the CPM approves a PAR or PAR-like analysis of the anticipated long-term maintenance and management costs of the compensation lands. Written verification shall be provided to the CPM and CDFG to confirm payment of the long-term maintenance and management funds.

No later than 60 days after the CPM determines what activities are required to provide for initial protection and habitat improvement on the compensation lands, the project owner shall make funding available for those activities and provide written verification to the CPM of what funds are available and how costs will be paid. Initial protection and habitat improvement activities on the compensation lands shall be completed, and written verification provided to the CPM, no later than six months after the CPM's determination of what activities are required on the compensation lands.

If electing to satisfy the requirements of this condition by utilizing the options created by CDFG pursuant to SBX8 34, the Project owner shall notify the Commission that it would like a determination that the Project's in-lieu fee proposal meets CEQA and CESA requirements.

No fewer than 30 days prior to the start of work potentially affecting jurisdictional state waters, the project owner shall provide written verification (i.e., through incorporation into the BRMIMP) to the CPM that the above best management practices will be implemented and provide a discussion of work in jurisdictional state waters in Compliance Reports for the duration of the project.

STAFF COMMENT:

See Staff Comments on PMPD pp. 36-37, above.

PMPD, pp. 103-122 (BIO-19)

SPECIAL STATUS PLANT SURVEYS AND PROTECTION PLAN

BIO-19 *This condition contains the following four sections:*

- *Section A: Special-Status Plant Impact Avoidance and Minimization Measures contains the Best Management Practices and other measures designed to avoid accidental impacts to special status plants on the project site that occur outside of the Project Disturbance Area and within 100 feet of the Project Disturbance Area and special status plants occurring within the rights of way for the off-site water pipeline and, transmission line~~, as practicable~~, during construction, operation, and closure.*
- *Section B: Conduct Late Season Botanical Surveys describes guidelines for conducting summer-fall 2010 surveys to detect special-status plants that would have been missed during the spring 2010 surveys.*
- *Section C: Avoidance Requirements for Special-Status Plants Detected in the Summer/Fall 2010 Surveys outlines the level of avoidance required for plants detected during the summer-fall surveys, based on the species' rarity and status codes.*

- *Section D: Off-Site Compensatory Mitigation for Special-Status Plants describes performance standards for mitigation for a range of options for compensatory mitigation through acquisition, restoration/enhancement, ~~in lieu fees,~~ or a combination of acquisition and restoration/enhancement.*
- *"Project Disturbance Area" encompasses all areas to be temporarily and permanently disturbed by the Project, including the plant site, linear facilities, and areas disturbed by temporary access roads, fence installation, construction work lay-down and staging areas, parking, storage, or by any other activities resulting in disturbance to soil or vegetation.*
- *The Project owner shall implement the following measures in Section A, B, C, and D to avoid, minimize, and compensate for impacts to special - status plant species:*
- ~~*Section A. Special Status Plant Avoidance and Minimization Measures*~~

Section A. Special Status Plant Avoidance and Minimization Measures

To protect all special status plants[1] located ~~on site~~ outside of the Project Disturbance Area and within 100 feet of the permitted Project Disturbance Area (including access roads, staging areas, laydown areas, parking and storage areas) and special status plants occurring within the rights of way for the offsite pipeline and transmission line, from accidental and indirect impacts during construction, operation, and closure, the Project owner shall implement the following measures:

1. *Designated Botanist. An experienced botanist who meets the qualifications described in Section B-2 below shall oversee compliance with all special-status plant avoidance, minimization, and compensation measures described in this condition throughout construction, operation, and closure. The Designated Botanist shall oversee and train all other Biological Monitors tasked with conducting botanical survey and monitoring work. During operation of the project, the Designated Biologist shall be responsible for protecting special status plant on site occurring within 100 feet of the Project Disturbance Area and special status plant occurring with the right of way for the offsite pipeline and transmission line~~, as practicable~~.*

2. *Special Status Plant Impact Avoidance and Minimization Plan. The project owner shall develop and implement a Special Status Plant Impact Avoidance and Minimization Plan and shall incorporate the Plan into the BRMIMP (BIO-7). The Plan shall include the following elements:*

    a. Site Design Modifications: Incorporate site design modifications to minimize impacts to special-status plants along the Project linears: limiting the width of the work area; adjusting the location of staging

[1] Staff defines special-status plants as described in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (California Natural Resources Agency, Department of Fish and Game, issued November 24, 2009.

areas, lay downs, spur roads and poles or towers; driving and crushing vegetation as an alternative to blading temporary roads to preserve the seed bank, and minor adjustments to the alignment of the roads and pipelines within the constraints of the right-of-way (ROW). These modifications shall be clearly depicted on the grading and construction plans, and on report-sized maps in the BRMIMP;

b. Establish Environmentally Sensitive Areas (ESAs). Before construction, the Designated Botanist shall establish ESAs to protect avoided special status plants that occur ~~onsite~~ outside of the Project Disturbance Areas and within 100 feet of Project Disturbance Areas, and avoided special status plants that occur within the rights of way for the offsite pipeline and transmission line. This includes plant occurrences identified during the spring 2010 surveys and the late season 2010 surveys. The locations of ESAs shall be clearly depicted on construction drawings, which shall also include all avoidance and minimization measures on the margins of the construction plans. The boundaries of the ESAs shall be placed a minimum of 20 feet from the uphill side of the occurrence and 10 feet from the downhill side. Where this is not possible due to construction constraints, other protection measures, such as silt-fencing and signs prohibiting movement of the fencing or sediment controls, may be employed to protect the occurrences. ESAs shall be clearly delineated in the field with temporary construction fencing and signs prohibiting movement of the fence under penalty of work stoppages and additional compensatory mitigation. ESAs shall also be clearly identified (with signage or other markers) to ensure that avoided plants are not inadvertently harmed during construction, operation, or closure. ~~Where avoidance will not allow for long-term viability of the species, no ESA shall be established.~~

c. Special-Status Plant Worker Environmental Awareness Program (WEAP). The Plan shall include training components specific to protection of special-status plants, and shall be incorporated into the WEAP described in BIO-6;

d. Herbicide and Soil Stabilizer Drift Control Measures. The Plan shall provide detailed specifications for avoiding herbicide and soil stabilizer drift, and shall include a list of herbicides and soil stabilizers that will be used on the Project with manufacturer's guidance on appropriate use. The Plan shall Indicate where the herbicides will be used, and what techniques will be used to avoid chemical drift or residual toxicity to special-status plants, consistent with guidelines provided by the Nature

Conservancy's The Global Invasive Species Team[2], the U.S. Environmental Protection Agency, and the Pesticide Action Network Database.[3]

e. Erosion and Sediment Control Measures. The Plan shall include measures to ensure that erosion and sediment control measures do not inadvertently impact special-status plants located within an ESA (e.g., by using invasive or non-native plants in seed mixes, introducing pest plants through contaminated seed or straw, etc.). These measures shall be incorporated in the Storm Water Pollution Prevention Plan.

f. Avoid Special-Status Plant Occurrences. Designate spoil areas; equipment, vehicle, and materials storage areas; parking; equipment and vehicle maintenance areas, and; wash areas at least 100 feet from any ESAs.

g. Monitoring and Reporting Requirements. The Designated Botanist shall conduct weekly monitoring of the ESAs that protect special-status plant occurrences during construction and decommissioning activities and quarterly monitoring during operations. The Project owner shall also conduct annual monitoring of the avoided occurrences on site, and off site occurrences that are adjacent to the Project, for the life of the Project (see Verification, below).

~~*h. Seed Collection. As feasible, conduct pre construction collection of seed (or other propagules) of the affected special status plants within the Project Disturbance Area in the summer fall season prior to the start of construction and according to the seed collection and storage guidelines contained in (Wall 2009a; Bainbridge 2007). Collection of seed (or other propagules) shall be done by the Rancho Santa Ana Botanic Garden (RSABG) Conservation Program staff or other qualified seed or restoration specialist. The Project owner shall be responsible for all costs associated with seed storage. All seed storage shall occur at RSABG or other qualified seed dealer and at least 40 percent of the collected seed shall remain in long-term storage at RSABG Seed Conservation Program, San Diego Natural History Museum, or other qualified seed conservation program, and made available for contingency efforts in the event of on site or off site mitigation failure. Feasibility shall be determined based on the availability of seeds prior to construction activities. For Phase 1(a) and*~~

[2] Hillmer, J. & D. Liedtke. 2003. Safe herbicide handling: a guide for land stewards and volunteer stewards. Ohio Chapter, The Nature Conservancy, Dublin, OH. 200 pp. Online: <http://www.invasive.org/gist/products.html.

[3] Pesticide Action Network of North America. Kegley, S.E., Hill, B.R., Orme, S., Choi, A.H., 2010. PAN Pesticide Database, Pesticide Action Network, North America. San Francisco, CA. Online: <http://www.pesticideinfo.org>

~~*1(b), it is recognized that seed collection may not be possible given the timing of approvals and the scheduled initiation of construction.*~~

Section B. Conduct Late-Season Botanical Surveys

The Project owner shall conduct late-summer/fall botanical surveys for late-season special-status plants as described below:

1. Survey Timing. Surveys shall be timed to detect summer annuals triggered to germinate by the warm, tropical summer storms (which may occur any time between June and October). Fall-blooming perennials that respond to the cooler, later season storms that originate in the Pacific northwest (typically beginning in September or October) shall only be required if blooms and seeds are necessary for identification or the species are summer-deciduous and require leaves for identification. The surveys shall not be timed to coincide with the statistical peak bloom period of the target species but shall instead be based on plant phenology and the timing of a significant storm event (i.e., a 10mm or greater rain or multiple storm events of sufficient volume to trigger germination, as measured at or within 1 mile of the Project site). Surveys at the appropriate time to capture the characteristics necessary to identify the taxon.

2. Surveyor Qualifications and Training. Surveys shall be conducted by a qualified botanist knowledgeable in the complex biology of the local flora, and consistent with CDFG protocols (CDFG 2009). The botanical survey crew shall be prepared to mobilize quickly to conduct appropriately timed surveys. Each surveyor shall be equipped with a GPS unit and record a complete tracklog; these data shall be compiled and submitted along with the Summer-Fall Survey Botanical Report (described below). Prior to the start of surveys, all crew members shall, at a minimum, visit reference sites (where available) and/or review herbarium specimens of all BLM Sensitive plants, CNPS List 1B or 2 (Nature Serve rank S1 and S2) or proposed List 1B or 2 taxa, and any new reported or documented taxa, to obtain a search image. Because the potential for range extensions is unknown, the list of potentially occurring special-status plants shall include all special-status taxa known to occur within the Sonoran Desert region in California. The list shall also include taxa with bloom seasons that begin in fall and extend into the early spring as many of these are reported to be easier to detect in fall, following the start of the fall rains.

3. Survey Coverage.

a. Survey protocol utilized for the 2010 late spring surveys for the project site could be utilized for summer/fall botanical surveys (see Methods section of the URS report titled "Imperial Valley Solar (formerly Solar Two) (08-AFC-5) Applicant's Submittal of Late Spring Botany Report, URS Project No. 27657106.00804", dated June 11, 2010; or the project owner can do the following:

b. The survey coverage or intensity shall be in accordance with BLM Survey Protocols (issued July 2009), which specify that intuitive controlled surveys shall only be accomplished by botanists familiar with the habitats and species that may reasonably be expected to occur in the project area.

4. Documenting Occurrences. If a special-status plant is detected, the full extent of the population onsite shall be recorded using GPS in accordance with BLM survey protocols. Additionally, the extent of the population within one mile of project boundaries shall be assessed at least qualitatively to facilitate an accurate estimation of the proportion of the population affected by the project. For populations that are very dense or very large, the population size may be estimated by simple sampling techniques. When populations are very extensive or locally abundant, the survey must provide some basis for this assertion and roughly map the extent on a topographic map. All but the smallest populations (e.g., a population occupying less than 100 square feet) shall be recorded as area polygons; small populations may be recorded as point features. All GPS-recorded occurrences shall include: the number of plants, phenology, observed threats (e.g., OHV or invasive exotics), and habitat or community type. The map of occurrences submitted with the final botanical report shall be prepared to ensure consistency with definition of an occurrence by CNDDB , i.e., occurrences found within 0.25 miles of another occurrence of the same taxon, and not separated by significant habitat discontinuities, shall be combined into a single 'occurrence'. The project owner shall also submit the raw GPS shape files and metadata, and completed CNDDB forms for each 'occurrence' (as defined by CNDDB).

5. Reporting. Raw GPS data, metadata, and CNDDB field forms shall be provided to the CPM within two weeks of the completion of each survey. If surveys are split into two or more periods (e.q., a late summer survey and a fall survey), then a summary letter shall be submitted following each survey period.

The Final Summer-Fall Botanical Survey Report shall be prepared consistent with CDFG guidelines (CDFG 2009), and BLM guidelines and shall include the following components:

- *the BLM designation, NatureServe Global and State Rank of each species or taxon found (or proposed rank, or CNPS List);*
- *the number or percent of the occurrence that will be directly affected, and indirectly affected by changes in drainage patterns or altered geomorphic processes;*
- *the habitat or plant community that supports the occurrence and the total acres of that habitat or community type that occurs in the Project Disturbance Area;*

- *an indication of whether the occurrence has any local or regional significance (e.g., if it exhibits any unusual morphology, occurs at the periphery of its range in California, represents a significant range extension or disjunct occurrence, or occurs in an atypical habitat or substrate);*

- *a completed CNDDB field form for every occurrence (occurrences of the same species within 0.25 mile or less of each other combined as one occurrence, consistent with CNDDB methodology), and;*

- *two maps: one that depicts the raw GPS data (as collected in the field) on a topographic base map with Project features; and a second map that follows the CNDDB protocol for occurrence mapping.*

Section C. Avoidance Requirements for Special-Status Plants Detected in the Summer/Fall 2010 Surveys

The project owner shall apply the following avoidance standards to late blooming special status plant species that might be detected during late summer/fall season surveys. Avoidance and/or the mitigation measures described in Section D below would reduce impacts to any special-status plant species detected during the late summer/fall plant surveys to less than significant levels.

1. *Mitigation for CNDDB Rank 1 Plants (Critically Imperiled) – Avoidance Required: If late blooming species with a CNDDB rank of 1 are detected within the Project Disturbance Area, the project owner shall prepare and implement a Special Status Plant Mitigation Plan (Plan). The goal of the Plan shall be to retain at least 75 percent of the local population of the affected species. Compensatory mitigation, as described in Section D of this condition, and at a mitigation ratio of 3:1, shall be required for the 25 percent or portion that is not avoided. If after agency consultation, avoidance would not satisfy the long-term viability of the plant population, compensatory mitigation alone will be allowed. The Plan shall include at a minimum, the following components and definitions:*

    a. *A description of the occurrences of the CNDDB rank 1 species on and off the project site, the percent of the local population affected, and a description of how these occurrences would be impacted by the project, including direct and indirect effects. The local population shall be measured by the number of individuals occurring on the project site and within the local watershed of the project for wash-dependent species or species of unknown dispersal mechanism. Occurrences shall be considered impacted if they are within the project footprint or if they would be affected by project-related hydrologic changes.*

    b. *A description of how avoidance and minimization measures that would achieve complete avoidance of occurrences on the project linears and construction laydown areas, unless such avoidance would cause disturbance to areas not previously surveyed for biological resources.~~be~~*

~~*implemented on the project, with the requirement of retaining at least 75 percent of the local population of this species and avoiding all CNDB rank 1 species located in off-site linears. Compensatory mitigation, at a ratio of 3:1, and in accordance with the standards and specifications described in Section D of this condition, shall be required for the remaining 25 percent of the local population that is not avoided. Isolated 'islands' of protected plants disconnected by the project from natural fluvial processes shall not be considered to be protected and shall not be credited as contributing to the 75 percent avoidance requirement because such isolated populations are not sustainable. For currently isolated plant occurrences, the 75 % avoidance shall not be required as the isolated populations are unlikely to be sustainable. Mitigation as provided in Section D shall be required for such isolated occurrences.*~~

c. *A description of how avoidance and minimization measures would be implemented on the project solar facility, with the requirement of retaining at least 75 percent of the local population of this species. Compensatory mitigation, at a ratio of 3:1, and in accordance with the standards and specifications described in Section D of this condition, shall be required for the remaining 25 percent of the local population that is not avoided. Avoidance shall include protection of ecosystem processes essential for maintenance of the protected plant occurrence. Isolated 'islands' of protected plants disconnected by the project from natural fluvial processes shall not be considered to be protected and shall not be credited as contributing to the 75 percent avoidance requirement because such isolated populations are not sustainable.*

2. *Mitigation for CNDDB Rank 2 Plants (Imperiled): If species with a CNDDB rank of 2 are detected within the Project Disturbance Area, the project owner shall prepare and implement a Special Status Plant Mitigation Plan (Plan). The Plan shall include the following: describe measures to achieve complete avoidance of occurrences on the project linears and construction laydown areas, unless such avoidance would create greater environmental impacts in other resource areas (e.g., Cultural Resources sites) or other restrictions (e.g., FAA or other restrictions for placement of transmission poles). The project owner shall provide compensatory mitigation, at a ratio of 2:1, as described below in Section D for impacts to Rank 2 plants that could not be avoided.* ~~*mitigation, at a ratio of 2:1 as described below in Section D for Rank 2 plants that cannot be avoided. If after agency consultation, it is determined that avoidance would not satisfy the long-term viability of the plant, compensatory mitigation alone will be allowed.*~~ *The content of the Plan and definitions shall be as described above in subsection C.1.*

   a. *A description of the occurrences of the CNDDB rank 2 species on and off the project site, the percent of the local population affected, and how these occurrences would be affected by the project. The local population shall be measured, and the impacts defined, as described above under #1(a).*

b. *Avoidance and minimization measures that would achieve ~~maximize practicable~~ complete avoidance of occurrences on the project linear features, unless such avoidance would cause disturbance to areas not previously surveyed for biological resources. ~~including the requirement of avoiding all CNDDB rank 2 species located in off-site linears. If after agency consultation, it is determined that avoidance would not satisfy the long-term viability of the plant, compensatory mitigation alone will be allowed.~~*

c. *Compensatory mitigation, at a ratio of 2:1, and in accordance with the standards and specifications described in Section D of this condition, shall be required for any special status plant species that cannot be avoided. Avoidance shall include protection of the ecosystem processes essential for maintenance of the protected plant occurrence as described under #1 (c).*

3. *Mitigation for CNDDB Rank 3 Plants (Vulnerable) – No Onsite Avoidance Required Unless Local or Regional Significance: If species with a CNDDB rank of 3 are detected within the Project Disturbance Area, no onsite avoidance or compensatory mitigation shall be required unless the occurrence shall be treated as a CNDDB rank 2 plant species. A plant occurrence would be considered to have local or regional significance, in which case, the plant occurrence shall be treated as a CNDDB 2 ranked plant. A plant occurrence would be considered to have local or regional significance if:*

   - *It occurs at the outermost periphery of its range in California;*
   - *It occurs in an atypical habitat, region, or elevation for the taxon that suggests that the occurrence may have genetic significance (e.g., that may increase its ability to survive future threats), or;*
   - *It exhibits any unusual morphology that is not clearly attributable to environmental factors that may indicate a potential new variety or subspecies.*

4. *Pre-Construction Notification for State- or Federal-Listed Species, or BLM Sensitive Species. If a state or federal-listed species or BLM Sensitive species is detected, the project owner shall immediately notify the CDFG, USFWS, BLM, and the CPM.*

5. *Preservation of the Germplasm of Affected Special Status Plants: ~~As additional mitigation for the~~ For all significant impacts to special status plants, regardless of whether compensatory mitigation is required, mitigation shall include seed collection from the ~~prior to construction, the project owner shall collect seeds from all available~~ affected special status plants onsite prior to construction to conserve the germplasm and provide a seed source for restoration efforts. The seed shall be collected under the supervision or guidance of a reputable seed storage facility such as the Rancho Santa Ana Botanical Garden Seed*

Conservation Program, San Diego Natural History Museum, or the Missouri Botanical Garden. The costs associated with the long term storage of the seed shall be the responsibility of the project owner. Any efforts to propagate and reintroduce special status plants from seeds in the wild shall be carried out under the direct supervision of specialists such as those listed above and as part of a Habitat Restoration/Enhancement Plant approved by the CPM and made available for contingency efforts in the event of on site or off site mitigation failure. Feasibility shall be determined based on the availability of seeds prior to construction activities. For Phase 1(a) ~~and 1(b)~~, it is recognized that seed collection may not be possible given the timing of approvals and the scheduled initiation of construction.

Section D. Mitigation Measures for Special Status Plants

Where compensatory mitigation is required under the terms of Section C, above, the project owner shall mitigate project impacts to special status plant occurrences with compensatory mitigation. Compensatory mitigation shall consist of acquisition of habitat supporting the target species, or restoration/enhancement of populations of the target species, and shall meet the performance standards for mitigation described below. ~~In the event that no opportunities for acquisition or restoration/enhancement exist, the Project owner can fund a species distribution study designed to promote the future preservation, protection or recovery of the species. Finally, if the project owner chooses, an in lieu fee can be paid to satisfy these requirements. If all or a portion of the acquired habitat compensation lands for Bio-10 or Bio-17 provide for the replacement of the Special Status Plants impacted, then the requirements of this condition will be reduced by that amount.~~ Compensatory mitigation shall be at a ratio of 3:1 for CNDDB Rank 1 plants, with three acres of habitat acquired or restored/enhanced for every acre of habitat occupied by the special status plant that will be disturbed by the Project Disturbance Area (for example if the area occupied by the special status plant collectively measured is ¼ acre than the compensatory mitigation will be ¾ of an acre). The mitigation ratio for CNDDB Rank 2 plants shall be 2:1. So, for the example above, the mitigation ratio would be one-half acre for the Rank 2 plants.

The project owner shall provide funding for the acquisition and/or restoration/enhancement, initial improvement, and long-term maintenance and management of the acquired or restored lands ~~or pay in lieu fees to satisfy this requirement~~. The actual costs to comply with this condition will vary depending on the Project Disturbance Area, the actual costs of acquiring compensation habitat, the actual costs of initially improving the habitat, the actual costs of long-term management as determined by a Property Analysis Record (PAR) report, and other transactional costs related to the use of compensatory mitigation.

The project owner shall comply with other related requirements in this condition:

I. Compensatory Mitigation by Acquisition: The requirements for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of special-status plant compensation lands include all of the following:

1. *<u>Selection Criteria for Acquisition Lands</u>. The compensation lands selected for acquisition may include any of the following three categories:*

   - *Occupied Habitat, No Habitat Threats. The compensation lands selected for acquisition shall be occupied by the target plant population and shall be characterized by site integrity and habitat quality that are required to support the target species, and shall be of equal or better habitat quality than that of the affected occurrence. The occurrence of the target special-status plant on the proposed acquisition lands should be viable, stable or increasing (in size and reproduction).*

   - *Occupied Habitat, Habitat Threats. Occupied compensation lands characterized by habitat threats may also be acquired as long as the population could be reasonably expected to recover with habitat restoration efforts (e.g., OHV or grazing exclusion, or removal of invasive non-native plants) and is accompanied by a Habitat Enhancement/Restoration Plan as described in Section D.II, below.*

   - *Unoccupied but Adjacent. The project owner may also acquire habitat for which occupancy by the target species has not been documented, if the proposed acquisition lands are adjacent to occupied habitat. The Project owner shall provide evidence that acquisitions of such unoccupied lands would improve the defensibility and long -term sustainability of the occupied habitat by providing a protective buffer around the occurrence and by enhancing connectivity with undisturbed habitat. This acquisition may include habitat restoration efforts where appropriate, particularly when these restoration efforts will benefit adjacent habitat that is occupied by the target species.*

2. *<u>Review and Approval of Compensation Lands Prior to Acquisition</u>. The project owner shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for special - status plants in relation to the criteria listed above, and must be approved by the CPM. ~~The CPM shall provide a written response to the proposal within 30 days of receipt, explaining the reasons for approving or disapproving the proposal.~~*

3. *<u>Management Plan</u>. The project owner or approved third party shall fund the development of a management plan for the compensation lands for the entity that will be managing the lands. The goal of the management plan shall be to support and enhance the long-term viability of the target special-status plant occurrences. The Management Plan shall be submitted for review and approval to the CPM, in consultation with BLM.*

4. *Integrating Special-Status Plant Mitigation with Other Mitigation lands. If all or any portion of the acquired special status species habitat, state jurisdictional waters, or other required compensation lands meets the criteria above for special-status plant compensation lands, the portion of the other species' or habitat compensation lands that meets any of the criteria above may be used to fulfill that portion of the obligation for special-status plant mitigation.*

5. *Compensation Lands Acquisition Requirements. The project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM, has approved the proposed compensation lands:*

   a. *Preliminary Report. The project owner, or an approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the CPM. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPM. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board.*

   b. *Title/Conveyance. The project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the CPM. Any transfer of a conservation easement or fee title must be to CDFG, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to BLM or other public agency approved by the CPM. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFG or another entity approved by the CPM. If an entity other than CDFG holds a conservation easement over the compensation lands, the CPM may require that CDFG or another entity approved by the CPM, in consultation with CDFG, be named a third party beneficiary of the conservation easement. The project owner shall obtain approval of the CPM of the terms of any transfer of fee title or conservation easement to the compensation lands.*

   c. *Initial Protection and Habitat Improvement. The project owner shall fund activities that the CPM requires for the initial protection and habitat improvement of the compensation lands. These activities will vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands. The costs of these*

activities are estimated to be $27 per acre, using the estimated cost per acre for special status species habitat mitigation as a best available proxy, but actual costs will vary depending on the measures that are required for the compensation lands. A non-profit organization, CDFG or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the CPM in consultation with CDFG, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.

d. *Property Analysis Record. Upon identification of the compensation lands, the project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the CPM before it can be used to establish funding levels or management activities for the compensation lands.*

e. *Long-term Maintenance and Management Funding. The project owner shall provide money to establish an account with non-wasting capital that will be used to fund long-term maintenance and management of the compensation lands. The amount of money to be paid will be determined through an approved Property Analysis Record (PAR) or PAR-like analysis conducted for the compensation lands. Until an approved PAR or PAR-like analysis is conducted for the compensation lands, the amount of required funding is initially estimated to be $692 for every acre of compensation lands, using as the best available proxy, the estimated cost for special status species habitat compensatory mitigation. If compensatory lands will not be identified and a PAR or PAR-like analysis completed within the time period specified for this payment (see verification section at the end of this condition), the project owner shall either: (i) provide initial payment equal to the amount of $692 per acre, multiplied by a mitigation ratio of 3:1 (for Rank 1 species) or 2:1 (for Rank 2 species), and multiplied by the number of acres the project owner proposes to acquire for compensatory mitigation; or (ii) provide security to the Energy Commission under subsection (g), "Mitigation Security" below, in an amount equal to $692 multiplied by the number of acres the project owner proposes to acquire for compensatory mitigation at the established mitigation ratio. The amount of the required initial payment or security for this item shall be adjusted for any change in the Project Disturbance Area as described above. If an initial payment is made based on the estimated per acre costs, the project owner shall deposit*

additional money as may be needed to provide the full amount of long term maintenance and management funding indicated by a PAR or PAR-like analysis, once the analysis is completed and approved. If the approved analysis indicates less than $692 per acquired acre will be required for long-term maintenance and management, the excess paid will be returned to the project owner. The project owner must obtain the CPM's approval of the entity that will receive and hold the long-term maintenance and management fund for the compensation lands. The CPM will consult with CDFG before deciding whether to approve an entity to hold the project's long-term maintenance and management funds.

f. *Interest, Principal, and Pooling of Funds. The Project owner shall ensure that an agreement is in place with the long-term maintenance and management fund (endowment) holder/manager to ensure the following requirements are met:*

i. *Interest. Interest generated from the initial capital long-term maintenance and management fund shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action that is approved by the CPM and is designed to protect or improve the habitat values of the compensation lands.*

ii. *Withdrawal of Principal. The long-term maintenance and management fund principal shall not be drawn upon unless such withdrawal is deemed necessary by the CPM or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the species on the compensation lands.*

iii. *Pooling Long-Term Maintenance and Management Funds. An entity approved to hold long-term maintenance and management funds for the Project may pool those funds with similar non-wasting funds that it holds from other projects for long-term maintenance and management of compensation lands for special-status plants. However, for reporting purposes, the long-term maintenance and management funds for this Project must be tracked and reported individually to the CPM.*

g. *Other Expenses. In addition to the costs listed above, the Project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to the title and document review costs incurred from other state*

agency reviews, overhead related to providing compensation lands to CDFG or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.

6. *Mitigation Security. It is anticipated that the mitigation lands required under this condition will be nested in the mitigation lands required under BIO-10. Therefore, the security required under BIO-10 is adequate security for the mitigation required under this condition. However, the CPM's use of the security to implement measures in this condition and in BIO-10 may not fully satisfy the project owner's obligations under this condition.*

If it is determined that the mitigation lands acquired under BIO-10 do not satisfy the requirements of this condition, then the project owner will be required to provide additional security: Financial assurances shall be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") approved by the CPM prior to the start of ground-disturbing project activities. The amount of the Security shall be $692 per acre, using the estimated cost per acre for special status species habitat mitigation as a best available proxy, and multiplied by the established mitigation ratio, for every acre of habitat supporting the target special status plant species which is significantly impacted by the project. The actual costs to comply with this condition will vary depending on the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. Prior to submitting the Security to the CPM, the Project owner shall obtain the CPM's approval of the form of the Security. The CPM may draw on the Security if the CPM determines the project owner has failed to comply with the requirements specified in this condition. The CPM may use money from the Security solely for implementation of the requirements of this condition. The CPM's use of the Security to implement measures in this condition may not fully satisfy the project owner's obligations under this condition, and the project owner remains responsible for satisfying the obligations under this condition if the Security is insufficient. The unused Security shall be returned to the Project owner in whole or in part upon successful completion of the associated requirements in this condition.

II. Compensatory Mitigation by Habitat Enhancement/Restoration: *As an alternative or adjunct to land acquisition for compensatory mitigation the project owner may undertake habitat enhancement or restoration for the target special-status plant species. Habitat enhancement or restoration activities must achieve protection at a 3:1 ratio for Rank 1 plants and 2:1 for Rank 2 plants, with improvements applied to three acres, or two acres, respectively, of habitat for every acre special-status plant habitat directly or indirectly disturbed by the Project Disturbance Area (for example if the area occupied by the special status plant collectively measured is 1/4 acre than the improvements would be applied to an area equal to 3/4 of an acre at a 3:1 ratio, or one-half acre at a 2:1 ratio). Examples of suitable enhancement projects include but are not limited to the following: i) control*

unauthorized vehicle use into an occurrence (or pedestrian use if clearly damaging to the species); ii) control of invasive non-native plants that infest or pose an immediate threat to an occurrence; iii) exclude grazing by wild burros or livestock from an occurrence; or iv) restore lost or degraded hydrologic or geomorphic functions critical to the species by restoring previously diverted flows or increasing groundwater availability for dependent species.

If the project owner elects to undertake a habitat enhancement project for mitigation, the project must meet the following performance standards: The proposed enhancement project shall achieve rescue of an off-site occurrence that is currently assessed, based on the NatureServe threat ranking system[4] with one of the following threat ranks: a) long-term decline >30%; b) an immediate threat that affects >30% of the population, or c) has an overall threat impact that is High to Very High. "Rescue" would be considered successful if it achieves an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").

If the Project owner elects to undertake a habitat enhancement project for mitigation, they shall submit a Habitat Enhancement/Restoration Plan to the CPM for review and approval, and shall provide sufficient funding for implementation and monitoring of the Plan. The amount of the Security shall be $692 per acre, using the estimated cost per acre for special status species habitat mitigation as a best available proxy, at the ratio of 3:1 for Rank 1 plants and 2:1 for Rank 2 plants, for every acre of habitat supporting the target special-status plant species which is directly or indirectly impacted by the project. The amount of the security may be adjusted based on the actual costs of implementing the enhancement, restoration and monitoring. The implementation and monitoring of the enhancement/restoration may be undertaken by an appropriate third party such as NFWF, subject to approval by the CPM. The Habitat Enhancement/Restoration Plan shall include each of the following:

1. Goals and Objectives. Define the goals of the restoration or enhancement project and a measurable course of action developed to achieve those goals. The objective of the proposed habitat enhancement plan shall include restoration of a target special-status plant occurrence that is currently threatened with a long-term decline. The proposed enhancement plan shall achieve an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").

[4] Master, L., D. Faber-Langendoen, R. Bittman, G. A., Hammerson, B. Heidel, J. Nichols, L. Ramsay, and A. Tomaino. 2009. *NatureServe Conservation Status Assessments: Factors for Assessing Extinction Risk*. NatureServe, Arlington, VA. Online:
http://www.natureserve.org/publications/ConsStatusAssess_StatusFactors.pdf, "Threats". See also: Morse, L.E., J.M. Randall, N. Benton, R. Hiebert, and S. Lu. 2004. An Invasive Species Assessment Protocol: Evaluating Non-Native Plants for Their Impact on Biodiversity. Version 1. NatureServe, Arlington, Virginia. Online:
http://www.natureserve.org/publications/pubs/invasiveSpecies.pdf

2. Historical Conditions. Provide a description of the pre -impact or historical conditions (before the site was degraded by weeds or grazing or ORV, etc.), and the desired conditions.

3. Site Characteristics. Describe other site characteristics relevant to the restoration or enhancement project (e.g., composition of native and pest plants, topography and drainage patterns, soil types, geomorphic and hydrologic processes important to the site or species.

4. Ecological Factors. Describe other important ecological factors of the species being protected, restored, or enhanced such as total population, reproduction, distribution, pollinators, etc.

5. Methods. Describe the restoration methods that will be used (e.g., invasive exotics control, site protection, seedling protection, propagation techniques, etc.) and the long-term maintenance required. The implementation phase of the enhancement must be completed within five years.

6. Budget. Provide a detailed budget and time-line, and develop clear, measurable, objective-driven annual success criteria.

7. Monitoring. Develop clear, measurable monitoring methods that can be used to evaluate the effectiveness of the restoration and the benefit to the affected species. The Plan shall include a minimum of five years of quarterly monitoring and then annual monitoring for the remainder of the enhancement project, and until the performance standards for rescue of a threatened occurrence are met. At a minimum the progress reports shall include: quantitative measurements of the projects progress in meeting the enhancement project success criteria, detailed description of remedial actions taken or proposed, and contact information for the responsible parties.

8. Reporting Program. The Plan shall ensure accountability with a reporting program that includes progress toward goals and success criteria. Include names of responsible parties.

9. Contingency Plan. Describe the contingency plan for failure to meet annual goals.

10. Long-term Protection. Include proof of long-term protection for the restoration site. For private lands this would include conservations easements or other deed restrictions; projects on public lands must be contained in a Flat-Tailed Horned Lizard Management Area, Wildlife Habitat Management Area, or other land use protections that will protect the mitigation site and target species.

***Verification**: The Special Status Plant Impact Avoidance and Minimization Measures shall be incorporated into the BRMIMP as required under Condition of Certification BIO-7.*

Raw GPS data, metadata, and CNDDB field forms shall be submitted to the CPM within two weeks of the completion of each survey. A preliminary summary of results for the late summer/fall botanical surveys shall also be submitted to the CPM and BLM's State Botanist within two weeks following the completion of the surveys. If surveys are split into more than one period, then a summary letter shall be submitted following each survey period. The Final Summer-Fall Botanical Survey Report, GIS shape files, and metadata shall be submitted to the BLM State Botanist and the CPM no less than 30 days prior to the start of ground-disturbing activities. The Final Report shall include a detailed accounting of the acreage of Project impacts to special status plant occurrences. Where avoidance shall not provide for the long-term viability of the special status plants, the report will document the reasons why avoidance is deemed to not be effective.

A draft Conceptual Special Status Plant Mitigation Plan as described in Section C shall be submitted to the BLM State Botanist and the CPM for review and approval no less than 30 days prior to the start of ground-disturbing activities, if required.

The Project owner shall immediately provide written notification to the CPM, CDFG, USFWS, and BLM if it detects a State- or Federal-Listed Species, or BLM Sensitive Species at any time during its late summer/fall botanical surveys or at any time thereafter through the life of the project, including conclusion of project decommissioning.

No less than 30 days prior to the start of ground-disturbing activities, the project owner shall submit grading plans and construction drawings to the CPM which depict the location of Environmentally Sensitive Areas and the Avoidance and Minimization Measures contained in Section A of this Condition.

If the mitigation actions required under this condition are not completed prior to ground-disturbing activities, the project owner shall provide the CPM with approved Security ~~as described above~~ adequate to acquire compensatory mitigation lands and/or undertake habitat enhancement or restoration activities, as described in this condition.

No later than 12 months after the start of ground-disturbing project activities, the project owner shall submit a formal acquisition proposal to the CPM describing the parcels intended for purchase, and shall obtain approval from the CPM, in consultation with CDFG, BLM and USFWS, prior to the acquisition. If NFWF or another approved third party is handling the acquisition, the project owner shall fully cooperate with the third party to ensure the proposal is submitted within this time period; the project owner, however, shall be deemed in compliance of this condition if it has provided the required funding and satisfied the provisions of this condition no later than 12 months after start of ground-disturbing project activities. The project owner or an approved third party shall complete the acquisition and all required transfers of the compensation lands, and provide written verification to the CPM, CDFG, BLM and USFWS of such completion, no later than 18 months after the issuance of the Energy Commission Decision. If NFWF or another approved third party is being used for the acquisition, the project owner shall ensure that funds needed to accomplish the acquisition are transferred in timely manner

to facilitate the planned acquisition and to ensure the land can be acquired and transferred prior to the 18-month deadline. Provision of such funds will satisfy the project owner's obligations under this condition.

No fewer than 90 days prior to acquisition of compensatory mitigation lands, the project owner shall submit a formal acquisition proposal and draft Management Plan for the proposed lands to the CPM, with copies to CDFG, USFWS, and BLM, describing the parcels intended for purchase and shall obtain approval from the CPM prior to the acquisition. No fewer than 90 days prior to acquisition of compensatory mitigation lands, the project owner shall submit to the CPM and obtain CPM approval of any agreements to delegate land acquisition to an approved third party, or to manage compensation lands; such agreement shall be executed and implemented within 18 months of the Energy Commission's certification of the project.

The Project owner or an approved third party shall complete the acquisition and all required transfers of the compensation lands, and provide written verification to the CPM of such completion no later than 18 months after the start of project ground-disturbing activities. If NFWF or another approved third party is being used for the acquisition, the project owner shall ensure that funds needed to accomplish the acquisition are transferred in timely manner to facilitate the planned acquisition and to ensure the land can be acquired and transferred prior to the 18-month deadline.

If habitat enhancement is proposed, no later than six months following the start of ground-disturbing activities, the project owner shall obtain CPM approval of the final Habitat Enhancement/Restoration Plan, prepared in accordance with Section D, and submit to the CPM or a third party approved by the CPM Security adequate for long-term implementation and monitoring of the Habitat Enhancement/Restoration Plan.

Enhancement/restoration activities shall be initiated no later than 12 months from the start of construction. The implementation phase of the enhancement project shall be completed within five years of initiation. Until completion of the five-year implementation portion of the enhancement action, a report shall be prepared and submitted as part of the Annual Compliance Report. This report shall provide, at a minimum: a summary of activities for the preceding year and a summary of activities for the following year; quantitative measurements of the project's progress in meeting the enhancement project success criteria; detailed description of remedial actions taken or proposed; and contact information for the responsible parties.

~~*If a Status and Distribution Study is proposed, the study shall commence no later than six months following the start of ground-disturbing activities. The draft study shall be submitted to the CPM and BLM Botanist for review and approval no more than two years following the start of ground-disturbing activities. The final study shall be submitted no more than 30 months following the start of ground-disturbing activities.*~~

Within 18 months of ground-disturbing activities, the Project owner shall transfer to the CPM or an approved third party the difference between the Security paid and the actual costs of (1) acquiring compensatory mitigation lands, completing initial protection and

habitat improvement, and funding the long-term maintenance and management of compensatory mitigation lands; and/or (2) implementing and providing for the long-term protection and monitoring of habitat enhancement or restoration activities.

Implementation of the special status plant impact avoidance and minimization measures shall be reported in the Monthly Compliance Reports prepared by the Designated Botanist. Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, in consultation with the BLM State Botanist, a written construction termination report identifying how measures have been completed.

The Project owner shall submit a monitoring report every year for the life of the project to monitor effectiveness of protection measures for all avoided special-status plants to the CPM and BLM State Botanist. The monitoring report shall include: dates of worker awareness training sessions and attendees, completed CNDDB field forms for each avoided occurrence on-site and within 100 feet of the Project boundary off-site, and description of the remedial action, if warranted and planned for the upcoming year. The completed forms shall include an inventory of the special-status plant occurrences and description of the habitat conditions, an indication of population and habitat quality trends.

STAFF COMMENT:

Staff proposes to strike the "as practicable" language based on questions asked by the Committee about the vagueness of the language and implementation of this condition. (RT 7/27/10 31:22-32:20.)

Staff proposes deleting the language under Section A.2.h regarding Seed Collection because this requirement is set forth in Section C.5.

Staff's proposed changes to Section D reflect the conceptual agreement of the parties on Special Status Plant avoidance and mitigation at the August 16, 2010 evidentiary hearing. This agreement was reached after the applicant forwarded its proposed Conditions of Certification (Ex. 147), which appear to have been incorporated into the PMPD and which do not reflect the agreement of the parties. Staff's proposed changes to Section C in **BIO-19** above do reflect the agreement of the parties and should be incorporated into the Final Decision. (See also STAFF COMMENT on PMPD, p. 38, above.)

Staff and applicant have agreed at the August 10, 2010 workshop that a species distribution study should not be required and Staff accordingly has deleted this reference from the condition.

Staff proposes deleting changes to Section D, first paragraph regarding the requirements of this condition being reduced should acquired habitat compensation lands for BIO-10 or BIO-17 meet the requirements for this condition. This requirement is set forth in Section D.4.

PMPD: PROPOSED NEW CONDITION OF CERTIFICATION BIO-22

PROJECT CONSTRUCTION AND COMPENSATION PHASING PLAN

BIO-22 As an alternative to providing mitigation or security for compensatory mitigation for the entire project prior to the start of the first ground-disturbing activities, the project owner may elect to provide security for compensatory mitigation in three phases as specified in this condition.

Only the phases identified as Phase 1a, Phase 1b, and Phase 2, as described in this condition, and as provided by the applicant on August 16, 2010 by the Project Owner, in "Applicant's Submittal of Phase 1 Initial Disturbance for First 9 MW" dated August 13, 2010), in "Applicant's Submittal of Information Requested at the August 16, 2010 Hearing" dated, and in the Supplemental Staff Assessment may be used for the phasing of mitigation and security requirements. To the extent those sources are found to contain conflicting information about Project phasing, the description in this condition shall control. In particular, since the Supplemental Staff Assessment was prepared, the project owner has divided the project's Phase 1 into two separate sub-phases, identified as Phase 1a and 1b. This condition presumes that the phases identified in this condition are identical to the phases that the Bureau of Land Management (BLM) will authorize work on through issuance of "notices to proceed"; if phases used by BLM are not identical to the phases as described in this condition and the materials identified above, the project owner shall obtain separate written authorization from the CPM prior to beginning work on each of the phases. In no event shall any project disturbance occur unless payment or security for payment has been provided for the required mitigation associated with the particular phase of construction.

For purposes of this condition:

"Project Disturbance" or "ground disturbance" means any project-related ground, habitat, or species disturbing action.

"Project Disturbance Area" or "ground disturbance area" means all areas that would be temporarily or permanently disturbed during construction or operation of the Project, including all linear facilities, or which would be subject to any project-related ground, habitat, or species disturbing action.

"Project Footprint" means the Project Disturbance Area and undeveloped areas inside the Project's boundaries that will no longer provide functional habitat value, including but not limited to FTHL habitat, golden eagle

foraging habitat, Peninsular bighorn sheep foraging habitat, burrowing owl habitat, desert kit fox habitat, American badger habitat, rare plant habitat, and areas within ephemeral washes and drainages.

"Project construction" or "construction" means any ground-disturbing activity, including but not limited to construction work, site mobilization, or fence construction.

"Security" means the security that is required under other biological conditions of certification to ensure required mitigation measures will be implemented, or payments by the project owner into the National Fish and Wildlife Foundation (NFWF) mitigation account in accordance with the option provided in other conditions of certification.

Overview of Project Phases

Phase 1a includes the construction of the following components (378.3 acres):

a. Main Services Complex (onsite);
b. Substation (onsite);
c. Waterline originating from the Seeley Wastewater Treatment Facility (onsite and offsite);
d. Transmission line (onsite and offsite);
e. Fencing (onsite);
f. 360 SunCatcher pedestals area (onsite); and
g. Access roads (onsite).

Phase 1a would include 761.4 acres of FTHL mitigation, as well as impacts to 0.084 acres to rare plants and 12.86 acres to Waters of the U.S. and state jurisdictional waters.

Phase 1b includes the completion of construction of the Phase 1 (300 MW) portion of the project (2,682.3 acres):

a. Fencing (onsite);
b. Access roads (onsite); and
c. Remaining SunCatchers (onsite).

Phase 1b would include 2,682.3 acres of FTHL mitigation, as well as impacts to rare plants and to 270.14 acres Waters of the U.S. and state jurisdictional waters.

Phase 2 includes the completion of construction of the Phase 2 (450 MW) portion of the project (3,558.1 acres):

a. Fencing (onsite);

b. Access roads (onsite); and

c. Remaining SunCatchers (onsite).

Phase 2 would include 3,558.1 acres of FTHL mitigation, as well as impacts to rare plants and to 598 acres Waters of the U.S. and state jurisdictional waters.

General Requirements

At no time may the project owner cause ground-disturbance to any location outside of the area that has been approved for construction according to the phasing plan identified in this Condition of Certification.

Prior to initiating construction in either phase of the Project, the project owner shall comply with all pre-construction requirements in this and other Conditions of Certification and shall notify the CPM that it has obtained a Notice to Proceed for the particular phase from the BLM.

Construction activities, including work on linear and non-linear features, shall be in accordance with USFWS protocols as described in the Conferencing Opinion and required by Condition of Certification **BIO-9** (Flat-Tailed Horned Lizard Construction Monitoring and Occupancy Study).

The project owner shall provide security to ensure implementation of the mitigation requirements in Conditions of Certification **BIO-10** (Special Status Species Habitat Compensatory Mitigation), **BIO-17** (Lake and Streambed and Peninsular Bighorn Sheep Foraging Habitat Impact Minimization and Compensation Measures), and **BIO-19** (Special-Status Plant Surveys and Protection Plan) for each of the three phases prior to any project construction associated with that phase. Phasing of security only applies to security required by the Conditions listed above. If the project owner elects to phase payments of security under either a Project Owner Acquisition or NFWF option, the amount of the security (including payments to NFWF if applicable [see definition of security above]) will be adjusted by the CPM in consultation with DFG, BLM and USFWS prior to each phase to reflect the CPM's best estimate at that time of the estimated costs of land acquisition, long-term management and maintenance costs, and other costs that are included in the security computation. Those costs may be greater than the costs identified in the conditions of certification. Security for phased construction shall be in the amounts as specified in Conditions of Certification **BIO-10, -17** and **-19**, and may be adjusted by the CPM in consultation with DFG, BLM and USFWS based upon more accurate information provided by the project owner confirming the acreages described in this table, and on updates from the

REAT agencies with more current guidance than the *Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown for use with the REAT-NFWF Mitigation Account, September 14, 2010*.

Even when security has been provided, the project owner shall complete the acquisition, protection, and transfer of all compensation lands required in the conditions of certification listed above, as well as all funding requirements associated with those lands, within the time periods identified in those conditions of certification, except that the time period for providing compensation lands and funding associated with both Phases 1a and 1b shall be measured from the start of construction of Phase 1a alone, and the period for providing lands and funding required for Phase 2 activities shall be measured from the start of construction of Phase 2..

Additional requirements within the project's conditions of certification that are not expressly phased in this condition shall be phased as necessary to carry out the purpose of this condition, and to ensure that no project construction occurs in an area for which the project owner has not provided security and obtained permission to begin construction. Examples may include such activities as timing of pre-construction clearance surveys for other species. The project owner shall first obtain approval from the CPM, acting in consultation with BLM, CDFG and USFWS, for the phasing of any requirements or deadlines that are not expressly phased in conditions of certification.

Detailed Phasing Requirements

Phased impacts and compensation requirements are described in the table below by phase.

Phase 1a: The total acreage being impacted during Phase 1a is 378.3 acres. This includes the onsite and offsite transmission line, onsite and off-site waterline, main services complex, substation, roadwork, and the installation of 300 SunCatcher pedestals. Since we are interested in compensation mitigation for those lands occupied by FTHL, we reduce the impact acreage for the portion of the waterline located off the project site along the Evan Hewes ROW, which is not anticipated to impact FTHLs. The total acreage of the entire waterline is 84.1 acres. The portion of the waterline on the project site in FTHL habitat is 3.2 acres. 84.1 – 3.2 = 80.9 acres along the Evan Hewes ROW. 80.9 acres is subtracted to figure the amount of FTHL habitat being impacted during Phase 1a of construction.

378.3 acres – 80.9 acres = 297.4 acres of impacted FTHL habitat in Phase 1a.

However, 92.8 acres of FTHL habitat in the FTHL Yuha Desert Management Area (MA) outside of the project site will be impacted due to construction of the transmission line in Phase 1a. Impacts within MAs require a higher mitigation ratio of 6:1. Therefore, 92.8 acres x 6 = 556.8 acres are added to Phase 1a compensation. In addition, Phase 1a proposed project construction would affect state waters, rare plant locations, or other special status species identified during pre-construction and late season botanical surveys. The applicant shall provide an enumeration of state jurisdictional waters, special status species, rare plant habitat impacts, and shall provide security for required compensation for those impacts as described in Conditions of Certification **BIO-10** (Special Status Species Habitat Compensatory Mitigation), **BIO-17** (Lake and Streambed and Peninsular Bighorn Sheep Foraging Habitat Impact Minimization and Compensation Measures), and **BIO-19** (Special Status Plant Surveys and Protection Plan) prior to initiating project construction associated with Phase 1a, as set forth in the verification section of this Condition.

Phase 1b: The total acreage being impacted during Phase 1b is 2,682.3 acres, which is also the impact acreage of FTHL habitat. This includes the remainder of the Phase 1 portion of the proposed project. In addition, Phase 1b proposed project construction would affect state waters, rare plant locations, or other special status species identified during pre-construction and late season botanical surveys. The applicant shall provide an enumeration of state jurisdictional waters, special status species, rare plant habitat impacts, and shall provide security for required compensation for those impacts as described in Conditions of Certification **BIO-10** (Special Status Species Habitat Compensatory Mitigation), **BIO-17** (Lake and Streambed and Peninsular Bighorn Sheep Foraging Habitat Impact Minimization and Compensation Measures), and **BIO-19** (Special Status Plant Surveys and Protection Plan) prior to initiating project construction associated with Phase 1a, as set forth in the verification section of this Condition. Security shall be provided prior to the start of any Phase 1b construction, as set forth in the verification section of this condition or prior to September 1, 2011, whichever comes first.

Phase 2: The total acreage being impacted during Phase 2 is 3,558.1 acres, which is also the impact acreage of FTHL habitat. In addition, Phase 2 proposed project construction would affect state waters, rare plant locations, or other special status species identified during pre-construction and late season botanical surveys. The applicant shall provide an enumeration of state jurisdictional waters, special status species, rare plant habitat impacts, and shall provide security for required compensation for those impacts as described in Conditions of Certification **BIO-10** (Special Status Species Habitat Compensatory Mitigation), **BIO-17** (Lake and Streambed and Peninsular Bighorn Sheep Foraging Habitat Impact Minimization and Compensation Measures), and **BIO-19** (Special Status Plant Surveys and

Protection Plan) prior to initiating project construction associated with Phase 1a, as set forth in the verification section of this Condition. Security shall be provided prior to the start of any Phase 2 construction, as set forth in the verification section of this condition.

Phase	Acreage of FTHL habitat impacted	Mitigation Ratio	Compensation Acreage
1a	204.6 acres	1:1	204.6 acres
1a	92.8 acres Offsite transmission line in FTHL Management Area	6:1	556.8 acres
Total for 1a	**297.4 acres**		**761.4 acres**
1b	**2682.3 acres**	**1:1**	**2682.3 acres**
2	**3558.1 acres**	**1:1**	**3558.1 acres**
TOTALS	**6,537.8 acres**		**7,001.8 acres**

Phase	Acreage of State Jurisdictional Waters	Mitigation Ratio
1a	12.86 acres	1:1
1b	270.14 acres	1:1
2	598 acres	1:1
TOTAL	**881 acres**	

Phase	Special Status Plants	Mitigation Ratio
1a	unknown*	2:1 or 3:1
1b	unknown*	2:1 or 3:1
2	unknown*	2:1 or 3:1

* Acreages to be provided by the project owner after fall botanical surveys.

Verification: No fewer than 30 days prior to the start of preconstruction surveys for each phase, the Project owner shall submit a description of the proposed construction activities for that phase to CDFG, USFWS, and BLM for review and to the CPM for review and approval. The description for each phase shall include the proposed construction schedule, a figure depicting the locations of proposed construction and number of acres of rare plant habitat, special status species habitat, and state-jurisdictional streambeds to be disturbed.

If all mitigation requirements, including habitat acquisition and protection, are not completed for a Project phase at least 30 days prior to the start of ground-disturbing activities for that phase, the Project Owner shall provide verification to the CPM and CDFG that approved security [as described in Conditions of Certification **BIO-10**

(Special Status Species Habitat Compensatory Mitigation), **BIO-17** (Lake and Streambed and Peninsular Bighorn Sheep Foraging Habitat Impact Minimization and Compensation Measures), and **BIO-19** (Special Status Plant Surveys and Protection Plan)] has been established in accordance with these Conditions of Certification no later than 30 days prior to beginning ground-disturbing activities for each Phase. Prior to submitting verification regarding the security to the CPM, the project owner shall obtain the CPM's approval of the security as required by the other Conditions For Phase 1b, the Project Owner shall obtain the CPM's approval of security and shall provide verification that approved security has been established by September 1, 2011 or 30 days prior to the start of Phase 1b construction, whichever occurs first. (The fixed deadline for Phase 1b security is necessary because under terms of this Condition, compensation lands and associated funding for both Phase 1a and Phase 1b will be due in the first half of 2012, assuming Phase 1a construction begins as planned in late 2010, and security must be in place well in advance of the mitigation obligations that are being guaranteed.

The Project Owner shall provide written verification to the CPM, CDFG, BLM and USFWS of the compensation lands acquisition, protection, and transfer requirements and satisfaction of associated funding requirements as set forth in BIO-10 and other conditions within the following time frames: (1) For Phase 1a and Phase 1b mitigation, verification shall be provided no later than18 months after the start of construction of Phase 1a, and (2) for Phase 2 mitigation, such verification shall be provided no later than 18 months after the start of construction of Phase 2. Other verification, notification and reporting requirements and other deadlines set forth in BIO-10 and other Conditions that relate to compensation land requirements, to the option of funding mitigation through the NFWF account, or to use of approved third parties to carry out mitigation requirements also apply to Phase 1 (1a and 1b combined) and to Phase 2.

Within 90 days after completion of all project related ground disturbance for each project phase, the project owner shall provide to the CPM, CDFG, BLM, and USFWS an analysis, based on aerial photography, with the final accounting of the amount of habitat disturbed during Project construction.

STAFF COMMENT:

Staff has worked to craft this condition to accommodate the applicant's late-filed request to phase either the payment of mitigation or posting security.

REAT Biological Resources Mitigation/Compensation Cost Estimate Table				
Biological Resources Mitigation/Compensation Cost Estimate Table for FTHL Mitigation under Condition of Certification BIO-10 - August 10, 2010[1] corrected				
	Phase 1A	**Phase 1B**	**Phase 2**	**TOTALS**
Number of Acres	761.4	2682.3	3558.1	**7001.8**
Estimated number of parcels to be acquired, at 160 acres per parcel[2]	5	17	23	**45**
Land cost at **$500**/acre[3]	$380,700.00	$1,341,150.00	$ 1,779,050.00	**$3,500,900.00**

Level 1 Environmental Site Assessment at $3000/parcel	$15,000.00	$51,000.00	$69,000.00	**$135,000.00**
Appraisal at no less than $5,000/parcel	$25,000.00	$85,000.00	$115,000.00	**$225,000.00**
Initial site work - clean-up, restoration or enhancement, at **$27**/acre[4]	$20,557.80	$72,422.10	$96,068.70	**$189,048.60**
Closing and Escrow Cost at $5000/parcel[5]	$25,000.00	$85,000.00	$115,000.00	**$225,000.00**
Biological survey for determining mitigation value of land (habitat based with species specific augmentation) at $5000/parcel	$25,000.00	$85,000.00	$115,000.00	**$225,000.00**
3rd Party Administrative Costs (Land Cost x 10%)[6]	$38,070.00	$134,115.00	$177,905.00	**$350,090.00**
Agency cost to accept land donation[7] (Land Cost x 15%) x 1.17 (17% of the 15% for overhead)	$66,812.85	$235,371.83	$312,223.28	**$614,407.95**
SUBTOTAL - Acquisition and Initial Site Work	**$596,140.65**	**$2,089,058.93**	**$2,779,246.98**	**$5,464,446.55**
Long-term Management and Maintenance Fund (LTMM) fee at **$692**/acre [8]	$526,888.80	$1,856,151.60	$2,462,205.20	**$4,845,245.60**
NFWF Fees				
Establish Project Specific Account	$12,000.00			**$12,000.00**
Call for and Process Pre-Proposal Modified RFP or RFP [10]	$30,000.00			**$30,000.00**
NFWF Management fee[3] for Acquisition and Enhancement Actions (Subtotal x 3%)	$17,884.22	$62,671.77	$83,377.41	**$163,933.40**
NFWF Management Fee for LTMM account (LTMM x 1%)	$5,268.89	$18,561.52	$24,622.05	**$48,452.46**
Subtotal of NFWF Fees	**$65,153.11**	**$81,233.28**	**$107,999.46**	**$254,385.85**
TOTAL Estimated cost for deposit in project specific REAT-NFWF Account	**$1,188,182.56**	**$4,026,443.81**	**$5,349,451.64**	**$10,564,078.00**

[1] All costs are best estimates as of summer 2010. Actual costs will be determined at the time of the transactions and may change the funding needed to implement the required mitigation obligation. Note: regardless of the estimates, the developer is responsible for providing adequate funding to implement the required mitigation.

[2] For the purposes of determining costs, a parcel is defined at 40 acres, recognizing that some will be larger and some will be smaller, but that 40 acres provides a good estimate for the number of transactions anticipated (based on input from BLM California Desert District).

[3] Generalized estimate taking into consideration a likely jump in land costs due to demand, and an 18-24 month window to acquire the land after agency decisions are made. If the agencies, developer, or 3rd party has better, credible information on land costs in the specific area where project-specific mitigation lands are likely to be purchased, that data overrides this general estimate. Note: regardless of the estimates, the developer is responsible for providing adequate funding to implement the required mitigation.

[4] Based on information from CDFG.

[5] Two transactions: landowner to 3rd party; 3rd party to agency

[6] includes staff time to work with agencies and landowners; develop management plan; oversee land transaction; organizational reporting and due diligence; review of acquisition documents; assembling acres to acquire….)

[7] Includes agency costs to accept the land into the public management system and costs associated with tracking/managing the costs associated with the donation acceptance, including 2 physical inspections; review and approval of the Level 1 ESA assessment; review of all title documents; drafting deed and deed restrictions; issue escrow instructions; mapping the parcels….

[8] Estimate for purposes of calculating general costs. The actual long term management costs will be determined using a Property Assessment Report (PAR) tailored to the specific acquisition. Includes land management; enforcement and defense of easement or title [short and long term]; monitoring….

SOIL AND WATER RESOURCES

PMPD, p. 3:

Maintenance after flood events would consist of sediment removal from roadway surfaces and removal of sediment from around stem pipe risers upstream of low-flow culverts. More extensive roadway repairs may be required after major flow events. ~~Sediment (desilting) basins are proposed upstream of 100 low flow crossings and at other areas within the project and at project boundaries for collection of sediment. Sediment basins are intended as a best management practice for water quality and to minimize roadway maintenance (sediment clearing) after minor runoff events. Sediment periodically removed from these basins would be distributed on-site at undetermined locations as deemed necessary by the project owner. Basin sizes would range from 200 cubic yards to 600 cubic yards, with several larger basins to be sized at the time of final design. Sizing is intended to collect estimated annual sediment production for two years using a regional procedure developed for the Mojave Desert.~~

STAFF COMMENT: The sediment basins have been removed from the project.

PMPD, p. 16:

2. Impacts and Mitigation

a. Construction

i. Erosion

The potential for erosion by wind during construction is expected to increase as a result of loss of vegetative cover and removal of other stabilizing features such as surface crust and desert pavement. The soils on the project site are highly susceptible to wind erosion under normal conditions. The paucity of vegetation on the site contributes to a natural propensity for wind erosion, although the potential for wind erosion is expected to be less in the watercourses than in the upland areas due to much higher density of vegetation in the riparian areas. The Applicant estimates that potential soil loss due to wind under existing conditions to be more than 100 tons per acre per year for the Imperial Valley Solar project site. This soil loss may more accurately be considered displacement, since soil lost by wind in one area of the Yuha Desert would likely settle in another, so under natural conditions, there is no overall net loss of soil in any given area. Disturbance by grading and vegetation removal in a specific area leaves soil particles in that area more vulnerable to detachment by wind, resulting in more net loss, or displacement. Wind-related soil loss is expected to occur on the site, and given the overall size of the disturbed area could be substantial during construction depending on

wind conditions. This could result in the net loss or displacement of topsoil on the site, as well as air quality and dust nuisance problems. Since the prevailing wind in the area for 11 months of the year is toward the east, dust from the site could reach Seeley, El Centro and the neighboring agricultural area.

STAFF COMMENT: Erosion is caused by both wind and water.

PMPD, p. 18:

*We will require implementation of a final DESCP in pursuant to Condition of Certification **SOIL&WATER-1** to ensure adequate BMPs are in place to address and mitigate potential erosion and loss of soil from wind and water erosion.*

STAFF COMMENT: Erosion is caused by both wind and water.

PMPD, pp. 21-22:

In April, 2010 Applicant submitted a "Sediment Study for Three Washes" prepared by Howard Chang, P.E., who testified as an expert witness for the Applicant. The document, Exhibit 30 in this proceeding, makes the conclusions that:

a. *The proposed sediment basins would create an adverse sediment transport impact on downstream property and should be removed from the project.*

b. *The presence of SunCatchers in the watercourses will not have a long-term adverse sediment transport morphology impact.*

c. *Roadways in the watercourses will cause a short-term impact on sediment delivery downstream.*

~~*addresses Staff's concerns about the impact of SunCatcher foundation poles in flow paths at the site during rain events. We have summarized those concerns above.*~~

PMPD, pp. 22, 24 and *passim*:

The preliminary LEDPA/Agency Preferred Alternative~~, hereinafter referred to as the 709 MW alternative,~~ would not place SunCatchers or associated maintenance roads anywhere in washes C, I, and K and the southern portions of washes E and G. Along the northern portion of washes E and G a 200 foot wide corridor was left through the center of the wash as a FTHL movement corridor.

[…]

Staff identified two drainage avoidance alternatives (#1 and #2) that would mitigate potential impacts from SunCatcher construction in drainage ways. These drainage avoidance alternatives avoid or minimize impacts to Waters of the U.S.(WUS). Staff's two drainage avoidance alternatives reduce the number of SunCatchers, and therefore the plant's output, enough to make construction and operation of the project infeasible, and neither of them results in impacts to WUS so much below those of the BLM-preferred ~~709MW~~ alternative (32 and 38 acres, respectively, vs. 38.2 for the preferred ~~709MW~~ alternative) to justify their disadvantages. See the ***Alternatives*** *section of this Decision for a complete discussion of these alternatives. As required by Section 404(b)(1), alternatives analysis requires that to the extent practicable impacts to waters of the U.S. are: a) avoided; b) minimized; and, c) unavoidable impacts are mitigated. We find that the preferred ~~709MW~~ alternative, although not specifically included in the alternatives analysis in the SSA, Ex. 302, is within the range of alternatives analyzed and, more importantly, meets these criteria. The preferred ~~709MW~~ alternative, now adopted by the Applicant, avoids or minimizes impacts to WUS to the greatest extent practicable consistent with feasibility. On the basis of the evidence of record, we find that, with implementation of the preferred ~~709MW~~ alternative, the project's impacts on soil resources will be below the level of significance.*

STAFF COMMENT: As indicated in Staff's briefing in this proceeding, it is not certain that the Army Corps of Engineer's Draft 404(b)(1) Alternatives Analysis (known as the LEDPA) ultimately will be adopted unchanged by the BLM as its preferred alternative. Staff recommends that all references to "the 709 MW alternative" contained in the PMPD be changed to "the BLM-preferred alternative."

PMPD, p. 22:

~~*The preliminary LEDPA/Agency Preferred Alternative would not place SunCatchers or associated maintenance roads anywhere in washes C, I, and K and the southern portions of washes E and G. Along the northern portion of washes E and G a 200 foot wide corridor was left through the center of the wash as a FTHL movement corridor.*~~

STAFF COMMENT: Clarifies conclusions of Chang's report.

PMPD, p. 41:

SOIL&WATER-2 *The Imperial Valley Solar Project plans to utilize groundwater purchased from the Dan Boyer Water Company, during the period recycled water is not available from the Seeley County Water District. This condition limits water purchases from the Dan Boyer Water Company to 39 acre-feet per year, and specifies that water purchases and use restrictions have been met and documented by both Imperial Valley Solar and Dan Boyer Water Company. This condition also limits use of groundwater to a period of thirty-six (36) months from the date of first construction-related ground disturbance. Use of ground water for a period exceeding thirty-six (36) months is prohibited unless the project owner seeks a Project Amendment extending the permissible period of groundwater use.*

PMPD, p. 47:

SOIL&WATER-9 *If water is to be used from the Dan Boyer Water Company, the project owner shall provide the CPM two copies of the following: (1) Dan Boyer Water Company's well registration; (2) documentation and proof necessary to verify that all of Imperial County's specific terms for the well permit have been met; and (3) an executed Water Purchase Agreement (agreement) or option between Imperial Valley Solar and the Dan Boyer Water Company for the long term supply of groundwater for the project. The agreement shall specify the agreed upon delivery rate to meet the Imperial Valley Solar project's maximum construction and operation requirements (maximum supply of 39 acre-feet per year).*

STAFF COMMENT: The Committee has modified staff's Condition of Certification SOIL&WATER-2 to limit the applicant's use of groundwater from the Boyer groundwater well to 36-months. It further states that a use exceeding thirty-six (36) months is prohibited unless the project owner seeks a Project Amendment extending the permissible period of groundwater use. Condition of Certification SOIL&WATER-9, indicates that if water from the Boyer well is to be used the applicant must, among other things, enter into a long term agreement for the supply of 39 acre feet per year for the life of the project. It does not appear to be the intent of the committee to indicate the applicant can use groundwater for the life of the project.

PMPD: p. 47

~~*No later than 30 days prior to use of*~~ *If recycled water from the Seeley Waste Water Treatment Facility (WWTF) becomes an alternative water supply, the project owner shall provide the CPM two copies of the executed Recycled Water Purchase Agreement (agreement) with the recycled waste water purveyor for the long-term supply (40 years) of disinfected tertiary recycled water to the Imperial Valley Solar project*.

STAFF COMMENT: The first sentence should be edited to remove 'No later than 30 days prior to use of'.

PMPD: p. 47

~~*The project shall not use recycled connection to a recycled water pipeline for project use.*~~ *The agreement shall specify a delivery rate to meet Imperial Valley Solar project's maximum operation requirements and all terms and costs for the delivery and use of recycled water at the Imperial Valley Solar project. The Imperial Valley Solar project shall not use recycled water without the final agreement in place and submitted to the CPM. The project owner shall comply with the requirements of Title 22 and Title 17 of the California Code of Regulations and section 13523 of the California Water Code insofar as it applies to use of water by the Imperial Valley Solar project.*

STAFF COMMENT: The first sentence should be deleted.

CULTURAL RESOURCES

Staff continues to recommend that the PMPD only include the 11 conditions from the FEIS as additional evidence of what kinds of requirements are expected in the final Programmatic Agreement and the range of expected mitigation and not as Conditions of Certification. In order to better conform the FEIS based conditions into Commission Conditions of Certification, staff offers the following edits to ensure obligations and requirements are appropriately placed on the project owner.

Identify and evaluate cultural resources in final Area of Potential Effects

CUL-1 The ~~Applicant~~ project owner shall provide sufficient technical data, collected in a manner approved by the United States Bureau of Land Management (BLM) and Compliance Project Manager, (CPM), to enable the BLM and CPM to properly evaluate the significance of all potentially affected cultural resources.

~~Cultural resources data collection shall be conducted by professionals meeting the Secretary's Standards and in accordance with those Standards, to provide recommendations with regard to their eligibility for the National Register of Historic Places (National Register), California Register of Historical Resources (California Register), or local registers.~~

~~Preliminary determinations of National Register eligibility will be made by the BLM, in consultation with the CPM California Energy Commission (CEC) and other appropriate consulting parties, Native American tribes, and the State Historic Preservation Officer (SHPO). *Imperial Valley Solar Project FEIS Chapter 4 – Environmental Consequences 4.5-24*~~

Verification: The Applicant shall notify the CPM of all data transmitted to the BLM and upon request shall submit copies of all materials to the CPM, including but not limited to the identification and necessary credentials of all persons charged with the task of cultural resource data collection for the project.

STAFF COMMENT: Conditions of Certification place requirements on the project owner to perform mitigation to reduce significant impacts. Language changes remove requirements on third parties and focus the required action on the project owner.

Avoid and Protect Potentially Significant Resources.

CUL-2 Where feasible and upon approval by the BLM and CPM, potentially register-eligible resources ~~and register-eligible resources~~ shall be protected from direct project impacts by the project owner through project redesign and avoidance.

~~Complete avoidance of impacts to such resources shall be the preferred protection strategy.~~

~~Avoidance of direct physical effects is the preferred treatment measure for historic properties to which Native American tribes attach sacred or religious significance, or for properties that have cultural significance as a traditional cultural property.~~

~~The BLM would achieve this preferred treatment by conditioning the right-of-way (ROW) grant to exclude those historic properties, or lands from the project.~~

~~On the basis of preliminary National Register eligibility assessments or previous determinations of resource eligibility, the BLM and CEC, in consultation with the SHPO, may request the relocation of the project area where relocation would avoid or reduce damage to cultural resource values.~~

~~Where the BLM and the CPM, in consultation with the Applicant, decide that potentially National Register-eligible and/or California Register-eligible cultural resources cannot be protected from direct impacts by project redesign, or that~~ Where avoidance is not feasible, the ~~Applicant~~ project owner shall undertake additional studies needed by the BLM and CPM to evaluate the resources' National Register and/or California Register eligibility and to recommend further mitigative treatment. These additional studies will be based on: ~~Evaluations will be based on~~ surface remains, subsurface testing, archival and ethnographic resources, and in the framework of the historic context and important research questions of the project area.

Results of any additional evaluation studies and recommendations for mitigation of project effects shall be incorporated into a Historic Properties Treatment Plan (HPTP).

The project owner will ensure that all potentially National Register-eligible and/or California Register-eligible resources that will not be affected by direct impacts, but are within 100 feet of direct impact areas, will be designated as Environmentally Sensitive Areas(ESAs). ~~ensure that~~ The project owner will ensure that construction and operation activities do not encroach on-site peripheries.

Protective fencing, or other markers ~~after~~ as approval by CEC and BLM shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity.

~~ESAs shall not be identified specifically as cultural resources~~.

A monitoring program shall be developed and implemented by the project owner as part of a HPTP ~~and implemented by the Applicant~~ to ensure the effectiveness of ESA protection.

Verification: ~~The Applicant shall implement the protections and procedures as provide herein at the direction of the either BLM or CEC CPM or whenever a potentially register-eligible resource or register-eligible resource has been identified.~~ The project owner will provide to the CPM and BLM documentation of register-eligible resources avoided and the location of ESAs prior to construction within 100 feet of register-eligible resources. Where avoidance is not feasible, the project owner shall provide the results of the required additional studies 15 days prior to construction on the resource site.

STAFF COMMENT: Conditions of Certification place requirements on the project owner to perform mitigation to reduce significant impacts. Language changes remove requirements on third parties and focus the required action on the project owner. The language changes also place defined actions on the project owner such as avoiding register-eligible resources.

Develop and implement HPTPs.

CUL-3 Upon approval of the inventory report and the National Register and California Register eligibility evaluations, the ~~Applicant~~ project owner shall prepare and submit for approval by the CPM and BLM a Historic Properties Treatment Plan (HPTP) for register-eligible cultural resources to avoid or mitigate identified potential impacts.

Treatment of cultural resources shall follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 of the National Historic Preservation Act and other appropriate State and local regulations, as explained in Stipulation IV of the Draft Programmatic Agreement.

Avoidance, recordation, and data recovery will be used as mitigation alternatives.

Avoidance and protection shall be the preferred strategy.

~~The HPTP shall be submitted to the BLM for review and approval.~~

As part of the HPTP, the ~~Applicant~~ project owner shall prepare a research design and a scope of work for data recovery or additional treatment of National Register-eligible and/or California Register-eligible sites that cannot be avoided and to resolve effects.

The HPTP shall define and map all known National Register-eligible and/or California Eligible-eligible properties in or within 50 feet of all project APEs

and shall identify the cultural values that contribute to their National Register and/or California Register eligibility.

The HPTP shall also detail how National Register eligible and/or California Register-eligible properties will be marked and protected as ESAs during construction.

The HPTP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried register eligible cultural resources, including burials, cremations, or sacred features.

This sensitivity evaluation shall be conducted by an archaeologist who meets the Secretary's Standards and is approved by the CPM and BLM, and who takes into account geomorphic setting and surrounding distributions of archaeological deposits.

The HPTP shall detail provisions for monitoring construction in these high-sensitivity areas.

It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing register-eligibility in the event that unknown cultural resources are discovered during construction.

For all unanticipated cultural resource discoveries, the HPTP shall detail the methods, consultation procedures, and timelines for assessing register-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM,CEC, and the SHPO prior to implementation.

The HPTP shall include provisions for analysis of data in a regional context, reporting of results within 1 year of completion of field studies, curation of artifacts (except from private land) and data (maps, field notes, archival materials, recordings, reports, photographs, and analysts' data) at a facility that is approved by the CPM and BLM, and dissemination of reports to local and State repositories, the ~~Applicant,~~ project owner and interested professionals.

The BLM will retain ownership of artifacts collected from BLM managed lands.

~~The Applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections.~~

The HPTP shall specify that archaeologists and other discipline specialists conducting the studies meet the Secretary's Standards (per36 Code of Federal Regulations [CFR] 61).

Verification: ~~The Applicant shall notify the CPM of the submission of any HPTP to the BLM and upon request shall submit copies of the HPTP to the CPM.~~ No less than 30 days prior to the start of ground disturbance, the project owner shall submit the HPTP to the CPM and BLM for review and approval.

STAFF COMMENT: Language changes focus the required action on the project owner. The language changes also place defined actions with time lines on the project owner such as the development and submission of an HPTP.

Conduct data recovery or other actions to resolve adverse effects.

CUL-4 If National Register-eligible and/or California Register-eligible resources, as determined by the BLM, CPM or SHPO, cannot be protected from direct impacts of the proposed project, data-recovery investigations or other mitigation shall be conducted by the ~~Applicant~~ project owner to reduce adverse effects to the characteristics of each property that contribute to its National Register and/or California Register eligibility.

For sites eligible under Criterion (d), significant data could be recovered through excavation and analysis.

For properties eligible under Criteria (a), (b), or(c), mitigation may include but is not limited to historical documentation, photography, collection of oral histories, architectural or engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation.

Data gathered during the evaluation phase studies and the research design element of the HPTP shall guide plans and data thresholds for data recovery; treatment will be based on the resource's research potential beyond that realized during resource recordation and evaluation studies.

If data recovery is necessary, sampling for data-recovery excavations will follow standard statistical sampling methods, but sampling will be confined, as much as possible, to the direct impact area.

Data-recovery methods, sample sizes, and procedures shall be detailed in the HPTP and implemented by the ~~Applicant~~ project owner only after approval by the BLM and CPM.

Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the BLM and CPM to ensure that impacts to known significant archaeological deposits are adequately resolved.

A description of alternative treatments to resolve adverse effects that are not data recovery may include (but are not limited to):

(1) Placement of construction in parts of historic properties that do not contribute to the qualities that make the resource eligible for the National Register;
(2) ~~Deeding cemetery areas into open space in perpetuity and providing the necessary long-term protection measures;~~
(3) Public interpretation including the preparation of a public version of the cultural resources studies and/or education materials for local schools;
(4) Access by Native American tribes to traditional areas on the project site after the project has been constructed;
(5) Support by applicant to cultural centers in the preparation of interpretive displays; and
(6) Consideration of other off-site mitigation.

Verification: ~~The~~ Prior to construction activities impacting an eligible resource the project owner ~~Applicant~~ shall notify the CPM of the undertaking of any necessary data recovery investigation efforts as provided by this Condition and upon request shall make any results or such investigative activities available to the CPM.

STAFF COMMENT: Language changes focus the required action on the project owner. The deeding of cemetery areas into open space in perpetuity is not within the authority of the Commission or the project owner and therefore cannot requirement in a condition.

Monitor construction at known ESAs.

CUL-5 The ~~Applicant~~ project owner shall implement full-time archaeological monitoring by a professional archaeologist during ground disturbing activities at all cultural resource ESAs.

These locations and their protection boundaries shall be defined and mapped in the HPTP.

Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the project, and under direct supervision of a principal archaeologist.

The qualifications of the principal archaeologist and archaeological monitors shall be approved by the CPM and BLM.

A Native American monitor may be required at culturally sensitive locations specified by the BLM or CPM following government-to-government consultation with Native American tribes.

The monitoring plan in the HPTP shall indicate the locations where Native American monitors will be required.

The ~~Applicant~~ project owner shall retain and schedule any required Native American monitors.

Compliance with and effectiveness of any cultural resources monitoring required by an HPTP shall be documented by the ~~Applicant~~ project owner in a monthly report to be submitted to the BLM for the duration of project construction.

In the event that cultural resources are not properly protected by ESAs, all project work in the immediate vicinity shall be diverted to a buffer distance determined by the archaeological monitor until authorization to resume work has been granted by the BLM and CEC.

The ~~Applicant~~ project owner shall notify the BLM and CPM of any damage to cultural resource ESAs.

If such damage occurs, the ~~Applicant~~ project owner shall consult with the BLM and CPM to mitigate damages and to increase effectiveness of ESAs.

At the discretion of the BLM and ~~CEC~~ CPM, such mitigation may include, but not be limited to, modification of protective measures, refinement of monitoring protocols, data-recovery investigations or payment of compensatory damages in the form of non destructive cultural resources studies or protection within or outside the license area, at the discretion of the BLM.

Verification: Prior to construction the ~~Applicant~~ project owner shall ~~notify~~ provide the CPM and BLM ~~of all data transmitted to the BLM and upon request shall submit copies of all materials to the CPM, including but not limited to the~~ the identification and necessary credentials of all persons charged with the task of archaeological monitoring for the project.

STAFF COMMENT: Language changes focus the required action on the project owner and requires the project owner to identify for approval all archaeological monitors.

Train construction personnel.

CUL-6 The project owner shall ensure that all construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities.

The ~~Applicant~~ project owner shall complete training for all construction personnel and retain documentation showing when training of personnel was completed.

Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials.

Training shall inform all construction personnel that ESAs must be avoided and that travel and construction activity must be confined to designated roads and areas.

All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the Right of Way (ROW) by the Applicant, his representatives, or employees will not be allowed.

Violators will be subject to prosecution under the appropriate State and federal laws and violations will be grounds for removal from the project site.

Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order.

The following issues shall be addressed in training or in preparation for construction:

(1) All construction contracts shall require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources.
(2) The ~~Applicant~~ project owner shall provide training for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA, and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors.

Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources.

Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources.

Verification: The ~~Applicant~~ project owner shall maintain on-site records of training level, date and instructor for all construction personnel and supervisors. Upon request, the Applicant shall make these records available to the CPM.

Properly treat human remains.

CUL-7 All locations of known Native American human remains shall be avoided through project redesign and shall be protected by designation as ESAs.

The ~~Applicant~~ project owner shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains (see Stipulation VI of the Draft Programmatic Agreement).

The ~~Applicant~~ project owner shall assist and support the BLM in all required Section 106, government to-government and Native American Graves Protection and Repatriation Act (NAGPRA)consultations with Native Americans, agencies and commissions, and consulting parties as requested by the BLM.

The ~~Applicant~~ project owner shall comply with and implement all required actions and studies that result from such consultations.

If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the BLM authorized officer shall be informed immediately.

Avoidance and protection of inadvertent discoveries which contain human remains shall be the preferred protection strategy with complete avoidance of impacts to such resources protected from direct project impacts by project redesign.

The ~~Applicant~~ project owner shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains.

The ~~Applicant~~ project owner shall comply with and implement all required actions and studies that result from such consultations, as directed by the BLM.

Verification: The ~~Applicant~~ project owner shall notify the CPM of any known or discovered human remains on the project site or linear facilities that are reported to the BLM and upon request shall make all reports available to the CPM.

Monitor construction in areas of high sensitivity for buried resources.

CUL-8 The ~~Applicant~~ project owner shall implement archaeological monitoring by a professional archaeologist during subsurface construction disturbance at all locations identified in the HPTP as highly sensitive for buried prehistoric or historical archaeological sites or Native American human remains.

These locations and their protection boundaries shall be defined and mapped in the HPTP.

Intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the BLM and CEC.

Upon discovery of potential buried cultural materials by archaeologists or construction personnel, or damage to an ESA, work in the immediate area of the find shall be diverted and the CPM and BLM Authorized Officer or his/her designee shall be notified immediately.

Once the find has been inspected and a preliminary assessment made, the Applicant's archaeologist will consult with the CPM and BLM, as appropriate, to make the necessary plans for evaluation and treatment of the find(s) or mitigation of adverse effects to ESAs, in accordance with the Secretary's Standards, and as specified in the HPTP.

Verification: The ~~Applicant~~ project owner shall notify the CPM of all notifications to the BLM pursuant to this Condition and upon request shall make all reported materials available to the CPM, including but not limited to the identification and necessary credentials of all persons charged with the task of archaeological monitoring for the project.

Continue consultation with Native American and other traditional groups.

CUL-9 The ~~Applicant~~ project owner shall provide assistance to the BLM, as requested by the BLM, to continue required government to-government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994 and Section 106 of the National Historic Preservation Act) and other traditional groups to assess or mitigate the impact of the approved project on traditional cultural properties or other resources of Native American concern, such as sacred sites and landscapes, or areas of traditional plant gathering for food, medicine, basket weaving, or ceremonial uses.

As directed by the BLM, the ~~Applicant~~ project owner shall undertake required treatments, studies, or other actions that result from such consultation.

Actions that are required during or after construction shall be defined, detailed, and scheduled in the HPTP and implemented by the ~~Applicant~~ project owner.

Verification: The ~~Applicant~~ project owner shall notify the CPM of all requests of assistance to the BLM pursuant to this Condition and upon request shall make all reported materials available to the CPM.

Protect and monitor National Register-eligible and/or California Register-eligible properties.

CUL-10 The ~~Applicant~~ project owner shall design and implement a long-term management plan to protect National Register-eligible and/or California Register eligible sites from direct impacts of project operation and maintenance and from indirect impacts (such as erosion and access) that could result from the presence of the project.

The plan shall be developed in consultation with the BLM, CPM and other consulting parties to design measures that will be effective against project maintenance impacts, such as vegetation clearing and road and tower maintenance, and project-related vehicular impacts.

The plan shall also include protective measures for National Register-eligible and/or California Register eligible properties within the transmission line corridor or main project area that may experience operational and access impacts as a result of the project.

Measures considered shall include restrictive fencing or gates, permanent access road closures, signage, stabilization of potential erosive areas, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting National Register-eligible and/or California Register-eligible properties.

The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to National Register-eligible and/or California Register-eligible properties.

Monitoring of sites selected during consultation with BLM and the CPM shall be conducted annually by a professional archaeologist for a minimum period of 5 years.

Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photo monitoring stations and written observations.

A monitoring report shall be submitted to the BLM and CPM within 1 month following the annual resource monitoring.

The report shall indicate any properties that have been affected by erosion or vehicle or maintenance impacts.

For properties that have been impacted, the ~~Applicant~~ project owner shall provide recommendations for mitigating impacts and for improving protective measures.

After 5 years of resource monitoring, the BLM and CPM will evaluate the effectiveness of the protective measures and the monitoring program.

Based on that evaluation, the BLM or ~~CEC~~ CPM may require that the ~~Applicant~~ project owner revise or refine the protective measures, or alter the monitoring protocol or schedule.

If the BLM or CPM does not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of project operation.

If the annual monitoring program identifies adverse effects to National Register-eligible and/or California Register-eligible properties from operation or long-term presence of the project, or if, at any time, the ~~Applicant~~ project owner, BLM or CEC become aware of such adverse effects, the ~~Applicant~~ project owner shall notify the BLM and CPM immediately and implement additional protective measures, as directed by the BLM or CPM. At the discretion of the BLM or CPM such measures may include, but not be limited to, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of nondestructive cultural resources studies or protection.

Verification: The ~~Applicant~~ project manager shall notify the CPM of any long-term management plan submitted to the BLM pursuant to this Condition and upon request shall make all reported materials available to the CPM. The ~~Applicant~~ project manager shall notify the CPM of the annual report submitted to the BLM pursuant to this Condition and upon request shall make all reported materials available to the CPM.

Complete identification efforts for the Anza Trail and Coordinate Mitigation Efforts.

CUL-11 The project owner shall be subject to mitigation measures developed for the Juan Bautista de Anza National Historic Trail (Anza Trail) and outlined in the Programmatic Agreement shall provide for additional investigations throughout the project site to try to define the location of the Anza Trail or whether any archaeological evidence remains.

These methods include but are not limited to the use of imaging technology to try to identify a primary path for the Anza Trail.

Where archaeological data recovery is used as a mitigation measure to resolve effects to historic properties, the investigations should provide special attention to identifying artifacts or faunal remains that may have been left behind by the Anza party.

Coordination is also required with other mitigation measures for effects to the recreation trail and view-shed, which may include installation of interpretive displays at the project site or other known trail sites outside the project area, the development of visitor overlooks, and the creation of audio/driving interpretive materials.

Verification: The ~~Applicant~~ project owner shall notify the CPM of any reports submitted to the BLM pursuant to this Condition and upon request shall make all reported materials available to the CPM.

Compliance With BLM Programmatic Agreement

CUL-12 The ~~applicant~~ project owner shall be bound to abide, in total, by the terms of the programmatic agreement that the BLM is to execute under 36 CFR § 800.14(b)(3) for the proposed action. If for any reason, any party to the programmatic agreement were to terminate that document and it were to have no further force or effect for the purpose of compliance with Section 106 of the National Historic Preservation Act, the ~~applicant~~ project owner would continue to be bound by the terms of that original agreement for the purpose of compliance with CEQA until such time as a successor agreement had been negotiated and executed with the participation and approval of Energy Commission staff.

If provisions in the BLM Programmatic Agreement and associated implementation and monitoring programs conflict with or duplicate ~~these~~ Conditions of Certification **CUL-1** through **CUL-11**, the BLM provisions shall take precedence. Provisions in these conditions that are additional to or exceed BLM provisions and represent requirements under the Energy Commission's CEQA responsibilities shall continue to apply to the project's activities, contingent on BLM's approval.

Verification: Under the terms of the programmatic agreement, the applicant shall submit all documentation required by the agreement to the ~~Compliance Project Manager~~ CPM for review and approval.

STAFF COMMENTS: Suggested changes provide consistency with prior cultural resource conditions of certification and clarify the applicant's obligations.

LAND USE

PMPD: ***Land Use Compatibility and LORS Compliance***

- *Directly or indirectly* ~~*Physically disrupt or*~~ *divide an established community.*

- ~~*Conflict with any applicable habitat conservation plan or natural community conservation plan.*~~ (**PMPD LU p. 2**)

STAFF COMMENT: Land Use staff no longer uses this CEQA threshold to analyze impacts, as HCP-related issues are better suited to be analyzed by the Biological Resources staff, given their expertise. Given that Land Use staff did not include this threshold, there is no associated analysis of this threshold in the Land Use analysis. Therefore, this threshold needs to be deleted from the Land Use section of the PMPD.

PMPD:

- ~~*Conflict with any applicable land use plan, policy, or regulation of an agency that has jurisdiction or would have jurisdiction but for the Energy Commission's authority over the project, such as a General Plan, community or specific plan, local coastal program, airport land use compatibility plan, or zoning ordinance.*~~

- *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction, or that would normally have jurisdiction, over the project adopted for the purpose of avoiding or mitigating environmental effects.* ~~-~~ **(PMPD LU p. 2)**

STAFF COMMENT: The PMPD has incorrect wording for the LORS consistency threshold. The text has been revised to reflect the correct threshold used by Land Use staff in their analysis in both the SA/Draft EIS and the SSA.

PMPD: ~~*The FMMP has mapped the area adjacent to the eastern boundary of the 110-acre construction laydown site as Farmland of Local Importance and 1.5 miles east of the laydown site as Prime Farmland and Farmland of Statewide Importance. However, since construction laydown is a temporary use and the laydown site will be restored to its original state, the project will not result in permanent impacts to potential agricultural lands adjacent to or near the laydown site. (Ex. 302, p. C.8-6.)*~~ **(PMPD LU p. 5-6)**

STAFF COMMENT: This statement is inaccurate. Staff's discussion regarding temporary conversion was in relation to the transmission line, not the construction laydown area. As stated in the SSA (p. C.8-15), approximately 0.75 mile of the transmission line would traverse land designated for agriculture by Imperial County. Construction impacts of the new ROW would be temporary, and the amount of agricultural land permanently converted by the transmission line tower footings would be minimal. With regard to the construction laydown site, staff recommends the text to be deleted as noted above.

PMPD: ~~***Conflict with Habitat or Conservation Plan***~~ ***BLM's California Desert Conservation Area (CDCA) Plan.*** *The project site is located within the 25-million acre ~~California Desert Conservation Area (~~CDCA~~)~~, which was established by the federal government in 1976 and subject to BLM oversight. The BLM's CDCA Plan divides the public lands into multiple-use classifications describing the types of use permitted within the geographic areas. The project site's classification as Multiple-Use Class L (Limited Use) allows the construction of solar facilities but requires ~~BLM approval of ROW access pursuant to the CDCA Plan Amendment process~~ a project-specific CDCA Plan Amendment, as well as a ROW grant for the proposed project. ~~The Applicant's request for a project-specific CDCA Plan Amendment for ROW access from the BLM is pending.~~ Upon BLM's amendment of the CDCA Plan, the proposed project would be compliant with the CDCA Plan. (Ex. 1, § 5.9.3.2 et seq; Ex. 302, p. C.8-19, Table 3 at p. C.8-21.)* **(PMPD LU p. 8)**

STAFF COMMENT: The CDCA Plan is not an HCP as defined by CEQA, it is a federal land use plan prepared by the BLM. In addition, as noted in comments above, the LU analysis does not include the "conflict with an HCP" threshold. As such, Staff has edited the title and text of this section to more accurately describe the plan and to reflect the discussion of the plan as presented in the LU analysis in both the SA/Draft EIS and the SSA.

PMPD: *Under the Imperial County Land Use Ordinance (LUO), the current land use designation for the private lands within the project site and construction laydown area is S-2 (Open Space/Preservation). Solar generation ~~is an allowable use~~ would be permitted in the S-2 zone if it is consistent with the "Similarity ~~of~~ in Use(s)" findings required for a Conditional Use Permit (CUP) under Title 9 of the LUO. In February 2009, the county granted a CUP for the 49.5 MW Telstar Solar PV project in the S-2 zone. (Ex. 301, p. C.8-26 et seq. in Table 3.)* **(PMPD LU p. 8)**

STAFF COMMENT: Staff recommends the revisions noted above for the purpose of consistency with the language used in the SSA.

PMPD: *Staff reviewed the CUP findings that the county would have made but for the Energy Commission's exclusive jurisdiction and determined that the project would be inconsistent with the required LUO "Similarity ~~of~~ in Use(s)" finding. ~~and therefore~~ Therefore, staff concluded that the proposed project does not qualify as a "similar use" that can be conditionally permitted in the S-2 zone. ~~ineligible for a CUP.~~[5] (Ex. 302, p. C.8-26 et seq. in Table 3.)* **(PMPD LU p. 10)**

[5] The Commission's regulations direct Staff to give due deference to a local agency's recommendations regarding matters within that agency's jurisdiction. [Cal. Code Regs., tit. 20, §§ 1714.5(b) and 1744(e).]

STAFF COMMENT: Staff recommends the revisions noted above for the purpose of consistency with information provided by Imperial County and the language used in the SSA to reflect that information.

FINDINGS OF FACT

PMPD:

2. *The BLM-administered land is managed under the California Desert Conservation Area (CDCA) Plan and classified as Multiple Use Class L (Limited Use), which allows solar facilities but requires a project-specific CDCA Plan Amendment ~~for BLM approval of a new Right-of-Way (ROW)~~.* **(PMPD LU p. 14-15)**

STAFF COMMENT: This finding is inaccurate. The CDCA Plan amendment and ROW permit are two separate actions, and the LU LORS analysis specifically discusses the project's consistency with the CDCA Plan.

PMPD:

5. *There is no large-scale agricultural production on the project site or immediate vicinity ~~because soils at the site and within a one-mile radius of the site are not suitable for irrigated crop production~~.* **(PMPD LU p. 14-15)**

STAFF COMMENT: This finding is inaccurate. Stating that soils are not suitable for irrigated crop production is incorrect, since approximately 30 percent of the project site consists of Prime Farmland and Farmland of Statewide Importance as discussed in detail in the SA/Draft EIS and the SSA. Staff recommends the revisions noted above.

PMPD:

6. *Approximately 30 percent of the project site (1,931 acres) has been surveyed by the National Resource Conservation Service (NRCS). Based on the NRCS's Agricultural Land Evaluation and Site Assessment (LESA), the ~~The~~ project's conversion of ~~6,500~~ 1,931 acres of land to non-agricultural use does not exceed ~~the Agricultural Land Evaluation and Site Assessment (LESA's)~~ significance threshold.* **(PMPD LU p. 14-15)**

STAFF COMMENT: This statement is incorrect since only approximately 30% of the total proposed project site (1,931 acres) has been surveyed by the NRCS. Staff recommends the revisions noted above.

PMPD:

~~7. *The project will cause the temporary conversion of potential agricultural land for construction laydown but the laydown area will be restored to its pre-construction condition and will not result in the permanent conversion of potential farmland.*~~ **(PMPD LU p. 14-15)**

STAFF COMMENT: As noted above for Pages 5-6 of the PMPD LU section, Staff's discussion regarding temporary conversion was in relation to the transmission line, not the construction laydown area. Therefore, Staff recommends deleting this finding.

PMPD:

~~13. A solar power plant is a conditionally permitted use in the S-2 zone.~~ **(PMPD LU p. 14-15)**

STAFF COMMENT: This statement is inaccurate. The S-2 Zone does not specifically allow energy generation as a permitted or conditional use, which is why staff found the project to be inconsistent with the provisions of the S-2 zone. Staff recommends deleting this finding.

PMPD:

~~*14. The project is not eligible for a Conditional Use Permit in the S-2 zone as a "Similarity of Use" and is therefore inconsistent with applicable LORS.*~~

14. The project would be inconsistent with the required Land Use Ordinance "Similarity in Use(s)" finding, and therefore, would not qualify as a "similar use" that can be conditionally permitted in the S-2 zone. **(PMPD LU p. 14-15)**

STAFF COMMENT: Staff recommends the revisions noted above for the purpose of consistency with information provided by Imperial County and the associated language used in the SSA to reflect that information. Please refer to Imperial County letter to Energy Commission staff dated May 27, 2010.

PMPD:

19. The project is not compatible with surrounding uses within the S-2 zoning district. Overriding considerations warrant the acceptance of this inconsistency and a statement of overriding considerations is therefore necessary. **(PMPD LU p. 14-15)**

STAFF COMMENT: Punctuation revision: add a period at the end of the first sentence.

PMPD:

~~*20. Imperial Valley Solar will not result in significant direct or indirect land use impacts.*~~ **(PMPD LU p. 14-15)**

STAFF COMMENT: This finding should be deleted since cumulative impacts are significant and unavoidable, which are considered indirect land use impacts. Staff recommends deleting this finding.

CONCLUSIONS OF LAW

PMPD:

3. *The evidence of record contains an adequate analysis of the land use laws, ordinances, regulations, and standards that are relevant to the project and establishes that except for unavoidable significant visual impacts and cumulative effects on public desert lands subject to overriding considerations, the project will not result in significantly adverse land use effects as defined by ~~the National Environmental Policy Act and~~ the California Environmental Quality Act.* **(PMPD LU p. 16)**

STAFF COMMENT: NEPA findings are not within the jurisdiction of the Energy Commission. Staff recommends the text to be revised as shown above.

TRAFFIC AND TRANSPORTATION

PMPD: *The Applicant prepared, and Staff reviewed, an evaluation of ~~Both the Applicant and Staff evaluated~~ possible cumulative impacts and presented evidence showing that the project's construction and operation traffic will not result in cumulative considerable effects. (Ex. 1, p. 5.11-22, Ex. 302, pp. B.3-4 – B.3-10, C.11-18 - C.11-19.)* (**PMPD Traffic p. 5**)

VISUAL RESOURCES

PMPD: VIS-6

1. *The project owner shall insure the minimum distance from any SunCatcher reflector assembly to the property line shall be no less than 223 feet to the nearest public roadway to reduce the possibility of flash blindness.*

2. ~~*The project owner shall add a perforated metal diffusion shield to all SunCatchers behind the PCU to mitigate the 5% of the visible light spectrum that is observed in the operational images. If the PCU is approximately, 5'x7', then 2' on either side of the PCU should give a significant reduction in the halo effect.*~~

3. *The project owner shall modify the "offset tracking" procedure to require a 25° offset to minimize the presence of intrusive brightness.*

4. *The project owner shall modify the "Morning Stow to Tracking Transitions" timing to occur 30 minutes before sunrise and end in a 25° offset tracking position, ready to move into tracking position.*

5. *The project owner shall modify the "Night Stow" timing so it occurs 30 minutes after sunset to avoid any intrusive light effects.*

6. *The project owner shall develop an Emergency Glare Response Plan to quickly redirect a malfunctioning mirror to a safe orientation.*

7. *The project owner shall monitor the site during all hours of operation on a weekly basis for five years using video surveillance trucks to identify and document intrusive light conditions needing correction*

STAFF COMMENT: Staff recommends deletion of number 2 above as parties stipulated to the removal of the perforated metal diffusion shield during the evidentiary hearings.

Dated: September 16, 2010

Respectfully submitted,

/S/

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